

# The Nature of the Passive, with an Analysis of Vietnamese

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## Abstract

We attempt to clarify a great deal of confusion in the literature on what a passive is, and what counts as a passive in different languages. We do this through a detailed investigation of what has been identified as a passive in Vietnamese, sentences with the morphemes *bi* and *đượ*. We also compare these to Mandarin Chinese *bei*. We show that these morphemes are not passive at all: like English auxiliaries, they may occur with either an active complement or a passive one. We clarify this point and what it means to be a passive. Second, sentences with these morphemes and the corresponding sentences without them are truth-conditionally equivalent. We show that the extra meaning they convey is a type of projective, or not-at-issue, meaning that is separate from the at-issue content of the sentence. We provide a detailed syntactic and semantic analysis of Vietnamese, and give arguments for this analysis. We propose that there is no movement in Vietnamese, but there is in Chinese, and this difference accounts for differences between the two languages. We also clarify what agent-oriented adverbs of the ‘deliberately’ type show, and draw conclusions about English *get* passives and tough constructions.

Keywords: passive, Vietnamese, Mandarin Chinese, projective meaning, agent-oriented adverbs

## 1 Introduction

In many languages, like English, there is a clear distinction between active verbs and passive verbs. The passive involves a distinct morphological form—the past participle of the verb—and an auxiliary verb:

- (1) a. The dog broke the priceless vase.
- b. The priceless vase was/got broken (by the dog).

In addition, the logical external argument of the verb (*the dog* in the above examples) bears a different grammatical role in the passive: it is not the subject, but is either missing or appears as an oblique (a PP). What is the internal argument of the verb in the active (*the priceless vase* in the above examples) is often realized as the subject of the passive (but not always, as we will show below).

In some other languages, however, it is not clear if there is an active-passive distinction. Let us take the example of Vietnamese, representative of a pattern we see in other East Asian languages.<sup>1</sup> In Vietnamese, there is a construction that looks very much like the English passive, illustrated in (2).<sup>2</sup>

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<sup>1</sup>This pattern has been described most thoroughly for Mandarin Chinese (recent references include Shi 1997, Ting 1998, Huang 1999, Tang 2001), but also for Cantonese and Taiwanese (Huang 1999), Vietnamese (Simpson and Ho 2008, 2013), Thai and Burmese (Siewierska 1984, 149–159), and Khmer and Malay (Prasithrathsint 2004).

<sup>2</sup>Our description of Vietnamese bi-constructions in this paper draws heavily on Simpson and Ho (2008, 2013), who present a fairly thorough description of the construction. Data that we present without a reference come from the second author, but crucial sentences have been checked with numerous native speakers of Vietnam, from different areas. Survey results for particular data points will be presented with individual example sentences.

- (2) Nam bị đánh.  
 Nam BI hit  
 ‘Nam was hit (and suffered).’

This construction, which we will call neutrally a *bi-construction*, has what might be an auxiliary verb, *bị* (which we gloss BI), and the surface subject is the logical object of the verb. Like the English passive, when no external argument is present, it is interpreted as an existential (‘someone hit Nam’). There is also an implication of suffering, indicated in parentheses, which we discuss in detail below. The logical external argument can also be realized as an oblique, just as in English, although this use seems to be most prevalent in journalistic writing and may be an influence from English:<sup>3</sup>

- (3) Bee cũng từng bị ghét bởi mọi người.  
 Bee also Remote.Past BI hate by every person  
 ‘Bee also used to be hated by everybody (and suffered).’

Unlike English, however, the main verb bears no special morphology. Also unlike English, the logical external argument of the verb can appear between BI and the main verb, and has properties of a subject (section 2.2):

- (4) Nam bị Nga đánh.  
 Nam BI Nga hit  
 ‘Nam was hit by Nga (and suffered).’ (based on Simpson and Ho 2008, (11))

The surface subject also does not have to correspond to the internal argument of the main verb, but can bear any number of roles, including the external argument role, or the sole role of an intransitive verb (Siewierska 1984; Simpson and Ho 2008, 2013):

- (5) a. Nam bị xem một phim kinh dị.  
 Nam BI watch one film horror  
 ‘Nam watched a horror film (and suffered).’ (based on Simpson and Ho 2008, (48))  
 b. Nam bị mù.  
 Nam BI blind  
 ‘Nam was/became blind (and suffered).’ (based on Simpson and Ho 2008, (36))  
 c. Nam bị chết đuối.  
 Nam BI drown  
 ‘Nam drowned (and suffered).’ (based on Simpson and Ho 2008, (40))

It can also be the argument of a verb embedded further below the complement of BI:

- (6) Nam bị Nga bảo cảnh sát đến bắt.  
 Nam BI Nga tell police come arrest  
 ‘Nga told the police to come arrest Nam (and Nam suffered).’ (based on Simpson and Ho 2008, (15))

These differences make it less clear that bi-constructions are actually passives. The vast majority of the literature has assumed that they are, and has correspondingly tried to define “passive” in such a way as to encompass both the English type and the Vietnamese type (see Huang 1999, Her 2009 on Mandarin Chinese and Simpson and Ho 2008, 2013 on Vietnamese, for example).

<sup>3</sup>We thank Xuyen Dinh for pointing these out to us.

We argue that this view is based on a logical mistake: thinking that because BI marks a passive in one use, it must in all uses. We argue that the one essential property of the passive is external argument demotion (Comrie 1977). According to this criterion, some bi-constructions are passives (2, 3) but others are not (4, 5, 6). These points occupy the first part of this paper, section 2, where we also address issues of thematic role assignment and external-argument-oriented adverbs like ‘deliberately’. Our remarks in this section lead to a precise, cross-linguistically viable definition of the passive, and clarify our understanding of passives and various properties they exhibit. The second part of the paper, section 3, turns to a formal analysis of Vietnamese bi-constructions. We argue that the function of *bị* is simply predication, plus the addition of a not-at-issue entailment of suffering. The complement of *bị*, which may be active or passive, is turned into a predicate by a null operator (Huang 1999, among others). We argue that this null operator is base-generated and not moved in Vietnamese, but it may move to its surface position in Mandarin Chinese, with this difference explaining differences between the two languages.

## 2 Passives

The first part of this paper is concerned with clarifying what it means to be a passive. We first argue that it is a mistake to think that, because a morpheme appears in the passive, whenever it appears it is marking a passive. We then show that the one essential and defining property of the passive is external argument demotion or removal, not object promotion or anything else. This means that some bi-constructions in Vietnamese are passive but others are not. We then look at certain differences between English *be* passives on the one hand and *get* passives, bi-constructions, and tough constructions on the other regarding adverbs like ‘deliberately’, and clarify what these actually show.

### 2.1 A Logical Mistake

We began this paper with a couple of Vietnamese examples that do appear to be passive, repeated here:

- (7) a. Nam bị đánh.  
 Nam BI hit  
 ‘Nam was hit (and suffered).’  
 b. Bee cũng từng bị ghét bởi mọi người.  
 Bee also Remote.Past BI hate by every person  
 ‘Bee also used to be hated by everybody (and suffered).’

Just like well-established passives in other languages, these involve external argument demotion, as well as promotion of an internal argument.

Before proceeding, we should note that Vietnamese has a second morpheme that is used in the same way as *bị*, but has an implication of benefit rather than suffering. This morpheme is *được*, which we gloss as DUOC:

- (8) a. Nam được khen.  
 Nam DUOC praise  
 ‘Nam was praised (and benefited).’  
 b. Email đã được nhận bởi một số nhân-viên tại SonyPicturesEntertainment.  
 email Past DUOC receive by one number worker at SonyPicturesEntertainment  
 ‘Email was received by some workers at Sony Pictures Entertainment (and someone benefited).’

The two morphemes do not differ in grammatical ways (except that *được* also has a distinct use as a modal, discussed briefly below). As these examples attest, DUOC also appears to be used as a marker of the passive.

From these examples, it would be natural to conclude that the morphemes BI and DUOC are markers of the passive. It is only a step from there to the conclusion that *all* constructions that have BI or DUOC are passives (Siewierska 1984; Simpson and Ho 2008, 2013; also Huang 1999 and numerous others on constructions with *bei* in Mandarin Chinese, henceforth *bei-constructions*). This step is a mistake, however. Consider English passives, which we noted are marked by past participle morphology and an auxiliary verb. However, both of these have non-passive uses. The same participial morphology appears on actives in the perfect:

- (9) a. The dog was **bitten**. (passive)
- b. The dog has **bitten** someone. (active)

The same auxiliary verbs that mark the passive, *be* and *get*, also appear with non-passives, including actives:

- (10) a. Coconuts are [often eaten raw]. (passive)
- b. Those people are [often eating coconuts raw]. (active)
- (11) a. The mail got [sorted]. (passive)
- b. Branson, get [sorting]! (active)
- c. Branson got [the mail sorted]. (passive)
- d. Branson got [Johnson sorting the mail]. (active)

It is a logical mistake to say that, because a grammatical marker indicates a particular grammatical construction in one case, every instance of its appearance must be an instance of that grammatical construction. It is simply a fact that languages tend to use the same grammatical morphemes to do double duty. Additionally, it must be acknowledged that a grammatical construct—here “passive”—is distinct from its morphological markers. In English, the passive is marked by particular auxiliaries and a verbal form; but neither of these is passive by itself. In fact, being a passive is completely independent of the auxiliary verb. In English reduced relative clauses, no auxiliary is required, but the construction is still passive:

- (12) a. Any food consumed on the premises is at your own risk.
- b. Rodents fed radioactive pellets grow to unusual size.

Here the passive is marked solely by the participle, but we also do not want to identify the participle morphology as exclusively passive, because of its use in the perfect, above. The correct description of English, as is well known, is that the participle morphology is passive *unless* it occurs with the auxiliary *have*. Notice that this is considerably more complex than participle morphology simply marking passive. Constructions and morphology are simply not coextensive; the relation is always more complex. The passive has to be identified independently of the morphology (next subsection).

Returning to Vietnamese, even if we want to analyze the examples in (7) and (8) as passive (and we will), this does not mean that we should analyze examples like (4), (5), and (6), repeated below, as passive:

- (13) a. Nam bị Nga đánh.  
      Nam BI Nga hit  
      ‘Nam was hit by Nga (and suffered).’ (based on Simpson and Ho 2008, (11))
- b. Nam bị xem một phim kinh dị.  
      Nam BI watch one film horror  
      ‘Nam watched a horror film (and suffered).’ (based on Simpson and Ho 2008, (48))

- c. Nam bị mù.  
Nam BI blind  
'Nam was/became blind (and suffered).' (based on Simpson and Ho 2008, (36))
- d. Nam bị chết đuối.  
Nam BI drown  
'Nam drowned (and suffered).' (based on Simpson and Ho 2008, (40))
- e. Nam bị Nga bảo cảnh sát đến bắt.  
Nam BI Nga tell police come arrest  
'Nga told the police to come arrest Nam (and Nam suffered).' (based on Simpson and Ho 2008, (15))

Again, it is a logical mistake to assume that BI and DUOC always mark the passive. It could be that sometimes BI and DUOC occur with passives, and sometimes they do not (just like English *be* and *get*). It may also be that the passive never occurs without BI or DUOC (which seems to be true), but again this does not mean that BI and DUOC should be identified with the passive. In English, the passive does not occur without the participle morphology, but the participle morphology appears in contexts besides passives. Exactly the same is true of BI and DUOC, we contend: passives in Vietnamese only occur as the complement of BI or DUOC, but not every complement of BI and DUOC is passive.

Of course, it is always desirable if one can provide a uniform analysis of a given morpheme, and in fact we will do so in our analysis of Vietnamese BI and DUOC. We analyze them as not being passive at all, just like the English auxiliary verbs. We claim that both of them simply predicate their complement of their subject. Unlike English auxiliaries, however, BI and DUOC also introduce a not-at-issue entailment of suffering or benefit (see section 3). Moreover, BI and DUOC may, but need not, co-occur with a true passive (again just like English *be* and *get*). And like the English participle morphology, the passive does not occur without one of BI or DUOC.

## 2.2 Demotion, Not Promotion

How does one identify a passive, then, if morphology does not stand in a one-to-one relation with grammatical constructs? Let us begin by examining the essential properties of what everyone agrees is a passive.

The term “passive” refers to a confluence of properties: a particular morphological form or confluence of forms that is accompanied by various changes from the more morphologically basic active form. Two such changes that are often focused on are the fact that the object of the active corresponds to the subject of the passive, while the external argument of the active loses its argument status (it is either removed entirely, and interpreted as an existential, or it is expressed as an oblique).

Constructions of the Vietnamese *bi*-type are referred to as passives apparently on the basis of the first property: the surface subject (often) corresponds to an object of the active. However, it is obvious from the most cursory examination of Indo-European (and other) passives that object promotion is not an essential feature of the passive at all, only external argument removal is (Comrie 1977). For instance, impersonal passives and expletive passives do not involve object promotion:

- (14) Es wird gegessen.  
it becomes eaten  
'(People) are eating.' (German)
- (15) a. There were three studies done in 1976.  
b. There was believed to have been a spy at the Department of Defense.
- (16) Ha-ra-shoor-w-a u-bu-kawáavu mu-rí i-yi sokó.  
16S-Pres-sell-Pass-FV PP-14-rabbits 18-be this-9 9market

‘There are sold rabbits in this market.’ (Kiruúndi; Perez 1985, cited in Diercks 2012, (26b))

In German and English, the surface subject is a semantically contentless expletive; in Kiruúndi, the verb bears default agreement morphology, meaning that there is no subject. Object promotion, then, is clearly not a necessary part of a passive clause.

In addition, there are processes that promote objects but are not passives, for instance inverse constructions in Algonquian and Bantu languages. In the Algonquian language Passamaquoddy, third person NPs are either proximate (unmarked) or obviative. If the subject is proximate and the object obviative, the subject agrees in a prefix and is marked with a *direct* suffix. If the object is instead proximate, it acts like the subject in agreement and (often) word order, while the obviative subject agrees as an object. The verb is also marked with an *inverse* marker:

- (17) Passamaquoddy (based on (Bruening 2008, 69, (2)))
- a. Pesq muwin ’-toli-nuhsuphoqal-**à** mahtoqehsù.  
one bear 3-Prog-chase-**Dir**.ObvP rabbit.ObvP  
‘One bear (Prox) was chasing some rabbits (Obv).’
  - b. Mahtoqehs ’-toli-nuhsuphoqal-**ku-l** muwinu-**wol**.  
rabbit 3-Prog-chase-**Inv**-Obv bear-Obv  
‘A rabbit (Prox) was being chased by a bear (Obv).’

There is no sense in which the subject has lost its argument status, however, so the inverse is not a passive, as the literature on the inverse is careful to emphasize (e.g., Klaiman 1992 and references there).

Inverse constructions in Bantu languages are similar, though they do not involve a special morpheme. Instead, the object takes the subject position and agrees as though it is the subject (in noun class, indicated with a numeral):

- (18) Kinyarwanda (Ndayiragije 1999, 400)
- a. Abâna ba-á-ra-nyôye amatá.  
2children 2S-PST-F-drink:PERF 6milk  
‘Children drank milk.’
  - b. Amatá y-á-nyôye abâna.  
6milk 6S-PST-drink:PERF 2children  
‘Children (not parents) drank milk.’

Again, however, the logical subject is still an argument, and has not been removed or demoted to an oblique.

Object promotion is completely independent of the passive, then: passives do not necessarily involve object promotion, and object promotion can take place without the passive. Objects can also topicalize, or undergo A-scrambling in some languages; yet no one has ever called these processes “passivization.” On the view that equates passivization with object promotion, it is a complete mystery why not; object topicalization or scrambling sentences should count as passives. If passives are viewed as having to be morphologically marked relative to actives, then object topicalization in many languages should still count as a passive, since it is often accompanied by a special marker. This is true in Vietnamese, where topicalization can be almost identical in form to the bi-construction:

- (19) a. Tác giả này **thì** Nga đánh (, còn tác giả kia **thì** Nam đánh).  
author this Top Nga hit (, and author that Top Nam hit)  
‘This author, Nga hit (, and that author, Nam hit).’

- b. Tác giả này **bi** Nga đánh.  
author this BI Nga hit  
'This author was hit by Nga.'

The only difference between these two sentences is the topic marker versus the morpheme BI. It is entirely unclear why the bi-construction should be considered a passive but the topic construction should not, on the view that passivization equals object promotion.

English tough-constructions also ought to count as passives, if passivization is viewed as object promotion. They involve a lower object becoming the subject of a higher predicate:

- (20) a. It is tough to maintain this view of the passive.  
b. This view of the passive is tough to maintain.

Yet no one has ever tried to identify tough-constructions as passives, and for good reason. People have pointed out similarities between tough-constructions and long *bei*-constructions in Mandarin (e.g., Huang 1999, who also cites Feng 1995). We will have more to say about them below. The point here is that the passive cannot be identified as a promotion-to-subject operation.

Similarly, changes in morphological case are not a necessary feature of passives, as inherent or quirky case assignment shows:

- (21) Mir wurde den nächsten Tag geholfen.  
me.Dat became the next day helped  
'I was helped the next day.' (German; Sigurdsson 2006, (9))

The verb *helfen* assigns dative case to its object in the active, and the logical object still receives dative case in the passive, too.

The one thing that Indo-European (and other) passives all have in common is that the external argument of the corresponding active sentence is either missing and interpreted as an existential quantifier, or it is demoted to an oblique. External argument demotion/removal is *essential* to the passive: verbs that do not have external arguments cannot undergo passivization (Perlmutter and Postal 1984; see Bruening 2013 for more discussion, and some apparent exceptions). For instance, unaccusative verbs cannot be turned into impersonal passives or pseudopassives, while unergatives can:

- (22) Dutch (Perlmutter and Postal 1984, 107 (70), 109 (99b))  
a. Er wordt hier door de jonge lui veel gedanst.  
it becomes here by the young people a.lot danced  
'It is danced here a lot by the young people.'  
b. \*Uit dit weeshuis wordt (er) door vele kinderen verwenen.  
from this orphanage becomes (it) by many children disappeared  
'It is disappeared from this orphanage by many children.'
- (23) English (Perlmutter and Postal 1984, 101, (55e), (54c))  
a. The bridge was skied under by the contestants.  
b. \*The bridge was existed under by trolls.

The one essential property of passives is external argument removal or demotion.<sup>4</sup> Promotion of an object is not necessary, and is merely a side effect that may or may not occur. One way of viewing this is

<sup>4</sup>Reviewers point out that there is an analysis of the English passive that does not include external argument demotion/suppression, namely that of Collins (2005). However, this analysis has been heavily criticized, by Bowers (2010) and Legate (2012). We do not view it as a plausible analysis of the passive.

that removing the external argument opens up the subject position for something else; an object may then take the subject position, but it does not have to.

It therefore makes good taxonomic sense to reserve the term *passive* for processes that effect the one essential property of Indo-European passives: the demotion or removal of an external argument (Comrie 1977; Keenan 1980, 1985; Shibatani 1985; Bruening 2013). We suggest that Universal Grammar makes such an operation available to languages, and in our analysis it has a universal form: the head that projects the external argument, Voice (Kratzer 1996), comes in active and passive variants. Active Voice projects the external argument in its specifier, while passive Voice does not and instead existentially quantifies over it (see below, and Bruening 2013 for details, including how by-phrases work).

From this point of view, bi-constructions in Vietnamese with an external argument before the main verb like (4) are clearly not passives. The external argument is still present as an argument, and still has subject properties. For instance, it can antecede the strictly subject-oriented anaphor *mình* (note that Nam is a male name and Nga is a female name):

- (24) Nam<sub>1</sub> bị Nga<sub>2</sub> nhốt trong phòng ngủ của mình<sub>1/2</sub>.  
 Nam BI Nga lock in room sleep of self  
 ‘Nam was locked by Nga in his/her own room.’ (Simpson and Ho 2008, (13))

The same is true of Mandarin Chinese (see Huang 1999 and references there).

One other phenomenon shows clearly that the external argument has not been demoted in Vietnamese active bi-constructions. The reciprocal *nhau* can only be an object of a verb or a preposition, and can never be a subject:

- (25) a. Họ đánh nhau.  
 they hit each.other  
 ‘They hit each other.’  
 b. Họ đứng bên nhau.  
 they stand by each.other  
 ‘They are standing next to each other.’  
 c. \*Họ biết nhau làm gì.  
 they know each.other did what  
 ‘They know what each other did.’

The NP following *bị* cannot be a reciprocal, meaning that it is a subject, and not an oblique (like a prepositional object):

- (26) \*Họ bị nhau khen.  
 they BI each.other praise  
 ‘They were praised by each other.’

There is no external argument removal or demotion in a bi-construction with an external argument, then. Nor is there in examples like the following, repeated from above:

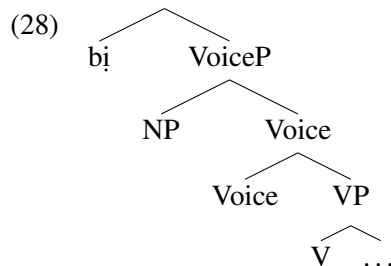
- (27) a. Nam bị xem một phim kinh dị.  
 Nam BI watch one film horror  
 ‘Nam watched a horror film (and suffered).’ (based on Simpson and Ho 2008, (48))  
 b. Nam bị mù.  
 Nam BI blind  
 ‘Nam was/became blind (and suffered).’ (based on Simpson and Ho 2008, (36))



- c. Nam bị chết đuối.  
 Nam BI drown  
 ‘Nam drowned (and suffered).’ (based on Simpson and Ho 2008, (40))

Bi-constructions based on intransitives, or where the surface subject is the underlying external argument, do not involve external argument removal or demotion, and so are not passives. From now on, we distinguish *passive bi-constructions* from *active bi-constructions*, where the passive ones have existential quantification over the external argument (or a by-phrase, in journalistic writing).

As stated above, we assume that the external argument is introduced by a syntactic head Voice (Kratzer 1996). The complement of BI is therefore at least a VoiceP in active bi-constructions:



We will flesh out this analysis in much more detail below. What is important here is that BI selects an *active* VoiceP in active bi-constructions.

Since there is no external argument removal or demotion in active bi-constructions, they are not passives. We see no advantage to be gained from calling them passives, and only confusion (compare the sections on what it means to be a passive in Huang 1999, Simpson and Ho 2008 and 2013, Her 2009, for instance).

Passive bi-constructions like (2) *are* passives. The missing external argument of the verb below BI is interpreted as an existential quantifier like ‘someone’. It cannot be bound or controlled, for instance, as the following Vietnamese examples with both BI and DUOC show (see Bhatt and Pancheva 2006 and references there on passives in English):

- (29) a. Tất cả các thành viên của bồi thẩm đoàn tin là bị cáo sẽ bị kết án nặng nề.  
 all PL member of jury believe Comp accused Fut BI condemn severely  
 ‘All the members of the jury believe that the accused will be condemned severely (by someone).’  
 \*‘All the members of the jury<sub>1</sub> believe that the accused will be condemned severely by them<sub>1</sub>.’
- b. Tất cả các phóng viên hy vọng tổng thống sẽ được phỏng vấn.  
 all PL reporter hope president Fut DUOC interview  
 ‘All the reporters hope that the president will be interviewed (by someone).’  
 \*‘All the reporters<sub>1</sub> hope that the president will be interviewed by them<sub>1</sub>.’

The missing external argument does not act like a null pronoun or PRO; rather, it acts like an existential quantifier, just like the missing external argument in an Indo-European passive. (The same is true of *bei*-constructions in Mandarin Chinese that lack an external argument.)

This means that BI and DUOC in Vietnamese can select either an active Voice Phrase or a passive one. But they themselves are not passive. In this they are just like English *be* or *get*, both of which can select either active or passive phrases, as was shown above. The literature on English (and other Indo-European languages) has long recognized that *be* and *get* are not passive; rather, they occur in construction with passives, among other things. The same is true of BI and DUOC in Vietnamese: they may occur with passives, but they also occur with actives, and they themselves not passive in any sense. This is an important

point that has been overlooked in the literature on bi-constructions and related constructions in other East Asian languages.

Related to this point, Huang (2013) proposes a different view of what a passive is. According to Huang (2013, 103), various different kinds of “passives” are formed by superimposing on a main predicate a higher “semi-lexical” verb whose meaning varies along a “causative-unaccusative spectrum.” For instance, *get* in English can be either causative or unaccusative, in Huang’s terminology:

- (30) a. Branson got Johnson fired. (Causative)  
b. Johnson got fired. (Unaccusative)

Further, “the canonical *be*-passive can now be seen as part of the continuum, as a construction formed by superimposing the verb *be* on the main passive predicate” (p103).

Notice, though, that the predicate itself is already passive, as evident in the quote; hence, this cannot be a general approach to passives. Furthermore, the auxiliary or other “semi-lexical” verb is not crucial at all in Indo-European passives; it is the participle itself that is passive. As we showed above, English reduced relative clauses can have passives with no auxiliary. So can adjectival passives, which also have existentially quantified external arguments (Bruening 2014 and the references there). Neither form requires the auxiliary *be*, or any other auxiliary or “semi-lexical” verb. The properties of the passive inhere in the participle itself, and have nothing to do with the selecting verb. All the “semi-lexical” verbs discussed by Huang (2013) simply share the property of taking as complement a passive participle; they themselves are not passive at all (most of them can select active predicates as well).

Huang’s (2013) view of passives cannot be maintained, then, and we reject it. English passive verbs are passive with or without an auxiliary; the auxiliary is not passive in any sense. Similarly, Mandarin *bei* and Vietnamese *bi* and *được* are also not passive, but their complement may be. Stated differently, Huang (2013) is correct to compare Mandarin *bei* and Vietnamese *bi/được* to English *get* and *be*, but the consequence is that none of them are passive.<sup>5</sup>

Indo-European passives, then, are verbal forms that existentially quantify over the external argument of the verb, and may or may not involve promotion of the object. It is incorrect to view the functional verbs that sometimes appear with these passive verb forms as passive. It is then also incorrect to view verbal forms that correspond to the Indo-European auxiliary verbs as passive (Vietnamese *bi/được*, Mandarin *bei*). Additionally, by doing so, one runs the risk of conflating very different phenomena and drawing unwarranted cross-linguistic conclusions. We therefore urge researchers to stop using the term *passive* to describe Mandarin *bei*-constructions and Vietnamese *bi*-constructions (and similar constructions in other languages).<sup>6</sup>

Having defined the passive as demotion or existential binding of the external argument, we would also like to point out that the grammatical operations that are at work in the passive can be found elsewhere in grammar, as well. For instance, the antipassive also involves either existential binding of an argument or

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<sup>5</sup>A reviewer suggests the term “non-canonical passive” for English *get* passives and Mandarin *bei*-constructions and Vietnamese *bi*-constructions, among other phenomena. This term has two problems: it implies a connection with passives, but also some difference. In our view, constructions are either passive or they are not. As just shown, *get* itself is not passive, nor are *bei* and *bi/được*. The complement of *get* may be passive, but *get* itself is not. This is true even with a causative: *Branson got Johnson fired* has a passive complement to *get*: [*Johnson fired*], where the external argument of *fired* is existentially quantified. There is nothing “non-canonical” about this passive complement; it is a garden-variety passive (and causative *get* can also take an active complement, as in *Branson got [Johnson sorting the mail]*). The same holds for Mandarin *bei*-constructions and Vietnamese *bi*-constructions: some are passive, some are not. We urge researchers to stop using the term “non-canonical passive.”

<sup>6</sup>A reviewer suggests that Vietnamese *bi*-constructions should be considered passives on the basis of their usage: they are used to perform the same functions as English passives (presumably, marking relative topicality or prominence of the object versus the subject). However, as a grammatical construction, usage is irrelevant to the definition of the passive. Similar functions are performed by topicalization and A-scrambling, neither of which is passive. Conversely, usage of the passive differs cross-linguistically: for instance, according to Demuth (1989), the passive must be used in Sesotho in order to extract the external argument, and correspondingly the frequency of the passive is much higher than it is in English.

demotion of that argument to an oblique, but now the argument involved is the *internal* argument. Promotion of an object to subject, which can also occur in the passive, also occurs elsewhere: in inverse constructions in various languages (above), in unaccusatives and middles, etc.<sup>7</sup> What this means is that the Principles and Parameters approach to constructions is correct: there really are no constructions. Rather, there are grammatical operations and constraints. Particular confluences of these can be referred to descriptively as a construction, but that term is used only for convenience and has no theoretical significance. In the case of the passive construction, this term is merely a shorthand for one or more grammatical operations that we know are at work elsewhere in grammar. When existential binding of the external argument takes place, we call that a passive. The same mechanism can also bind other arguments (internal argument = antipassive).

From this point of view, it makes little sense to debate what it means to be a passive and to try to draw typological conclusions regarding passives. What is really needed in each case is a precise, formal analysis of the mechanisms involved. Various formal proposals have been offered for English and other Indo-European passives; in our view, the correct ones involve existential quantification over the external argument and possible (but not necessary) A-movement of an internal argument (e.g., Bruening 2013). We offer a precise formal analysis of Vietnamese bi-constructions here. In our analysis, active bi-constructions involve none of the mechanisms at work in English passives. Short bi-constructions involve one of them, namely, existential quantification over the external argument. As such, they count as passives given the discussion above, but active bi-constructions do not.

### 2.3 On Thematic Roles, ‘Deliberately’ Adverbs, and Idioms

From the perspective outlined in the previous subsection, English *be* passives and English *get* passives do not differ: they are both passives. Nevertheless, researchers have pointed to differences between them that have often led to *get* passives being treated as “non-canonical” in some way (cf. note 5). Similar facts hold of Vietnamese bi-constructions, and also English tough-constructions. The facts involve interpretation, but we argue here that they have been misinterpreted. Most importantly, they do not bear on the question of whether a construction is passive or not.

English passives with *be* are truth-conditionally equivalent to their active counterparts. One cannot assert the active and deny the passive, or vice versa, without contradiction:

- (31) a. # The dog broke the vase, but the vase was not broken by the dog. (contradiction)  
 b. # The dog did not break the vase, but the vase was broken by the dog. (contradiction)

The NPs involved seem to bear exactly the same semantic roles in the active and passive counterparts. That is, actives and *be* passives do not differ in thematic role assignment. Related to this is the fact that ‘deliberately’-type adverbs may not associate with the surface subject of the *be* passive, the same way they cannot associate with the surface object of the active:

- (32) a. The dog bit the cat deliberately. (the cat cannot be the deliberate one)  
 b. The cat was deliberately bitten by the dog. (the cat cannot be the deliberate one)

This pattern makes sense if the only difference between the active and the passive with *be* is that surface grammatical roles have changed, while semantic roles have not.

Unlike the *be* passive, however, the *get* passive permits ‘deliberately’-type adverbs to modify the surface subject (Lakoff 1971, Lasnik and Fiengo 1974):

<sup>7</sup>A reviewer says that our definition of the passive ought to encompass middles, and treat them as passive. This is almost correct. As stated in the text, we take passives to involve existential quantification over the external argument when it is missing. Middles of the English type instead involve some sort of generic quantification (e.g., Condoravdi 1989). However, it is also true that many languages do not clearly distinguish middle and passive voice; the term *mediopassive* is often used in descriptions of such languages. We leave open the correct analysis of such constructions, but it is quite likely that many constructions called *mediopassive* are passives according to our definition.

- (33) a. \* Gillian was hit by that truck deliberately! (where Gillian is deliberate)  
 b. Gillian got hit by that truck deliberately!

The same is true of tough-constructions, where ‘deliberately’ may not modify the tough predicate in the expletive version but may where tough movement takes place:

- (34) a. \* It is deliberately difficult to pin down the director.  
 b. The director is deliberately difficult to pin down.

Vietnamese bi-constructions and Mandarin Chinese bi-constructions also permit ‘deliberately’-type adverbs to modify the surface subject, whether they are active or passive:<sup>8</sup>

- (35) Hân vô tình            bị đánh.  
 Han unintentionally BI hit  
 ‘Han unintentionally got hit (and suffered).’ (Vietnamese; Han is unintentional)
- (36) Zhangsan guyi            bei (Lisi) da le.  
 Zhangsan intentionally BEI (Lisi) hit Perf  
 ‘Zhangsan intentionally got hit (by Lisi).’ (Mandarin Chinese; Huang 1999, (6–7))

Many researchers have taken this to indicate that *get* passives, tough constructions, and bi- and bei-constructions, unlike *be* passives, involve additional thematic role assignment that is not part of the corresponding simple sentence (or expletive version, in the case of tough constructions). For instance, Huang (1999) argues that ‘deliberately’-type adverbs show that BEI in Mandarin assigns a theta role to its subject; according to Huang, this role is experiencer.

We argue that this phenomenon has been misunderstood, and shows nothing about thematic role assignment. It does show whether a subject is a derived subject or not. The discussion also establishes a number of things about the meaning of all of these constructions, which will be important in the next section in building an analysis.

First, observe that all of these constructions show truth-conditional equivalence. That is, a *get* passive is truth-conditionally equivalent to the corresponding active:

- (37) # A truck ran over Jane, but Jane didn’t get run over by a truck. (contradiction)

A tough-construction is truth-conditionally equivalent to the variant with an expletive:

- (38) # It was hard to get an appointment with Jane, but Jane wasn’t hard to get an appointment with. (contradiction)

Mandarin Chinese bei-constructions and Vietnamese bi-constructions are also truth-conditionally equivalent to their simple counterparts (meaning, without BEI or BI/DUOC):

- (39) *Mandarin Chinese*  
 a. # Lǐsì dǎ le Zhāngsān búguò Zhāngsān méi bèi Lǐsì dǎ.  
 Lisi hit Perf Zhangsan but Zhangsan Neg BEI Lisi hit  
 ‘Lisi hit Zhangsan but Zhangsan wasn’t hit by Lisi.’ (contradiction)

<sup>8</sup>Vietnamese does not permit ‘deliberately’ or ‘intentionally’, but it does permit adverbs of the same class, like ‘unintentionally’ here. We are not sure what is behind this restriction.

- b. # Lǐsì pàì jǐngchá zhuā-zuǒ le Zhāngsān búguò Zhāngsān méi bèi Lǐsì pàì jǐngchá  
 Lisi send police arrest Perf Zhangsan but Zhangsan Neg BEI Lisi send police  
 zhuā-zuǒ.  
 arrest  
 ‘Lisi sent the police to arrest Zhangsan but Zhangsan didn’t have Lisi send the police to arrest  
 him.’ (contradiction)

(40) *Vietnamese*

- a. # Nam ói nhưng Nam không bị ói.  
 Nam vomit but Nam Neg BI vomit  
 ‘Nam vomited but Nam didn’t vomit (and suffer).’ (contradiction)
- b. # Nga làm gãy một ngón tay của tôi nhưng tôi không bị Nga làm gãy một ngón tay.  
 Nga make snap one finger of I but I Neg BI Nga make snap one finger  
 ‘Nga snapped one of my fingers, but I didn’t have Nga snap one of my fingers (and suffer).’  
 (contradiction)

This is true even when the b(e)i-construction is long-distance (39b) and when the surface subject corresponds to a possessor rather than an object (40b; see below on possessive bi-constructions).

This seems to directly contradict the adverb evidence. Most of the previous literature assumes, with Huang (1999), that ‘deliberately’-type adverbs can only associate with NPs that are independently assigned either an agent or an experiencer theta role. But if the surface subject in all these constructions were assigned an agent or experiencer theta role that was not present in the corresponding active (or expletive) version, then it should be possible to affirm one while denying the other. In general, if a clause B is identical to clause A except that it has an additional thematic role not present in A, then *A but not B* is not a contradiction. The following sentence illustrates:

- (41) Jane appears foolish, but Jane doesn’t appear foolish to Jim. (not a contradiction)

One can negate *Jane appears foolish to Jim* while affirming *Jane appears foolish*. This is because the former adds an experiencer thematic role that is absent from *Jane appears foolish*, and that additional part of the proposition can be false while the rest is true.

Hence, if b(e)i-constructions in Mandarin and Vietnamese really involved an additional thematic role that was not present in the corresponding simple construction, then it should be possible to affirm the simple one while negating the b(e)i-construction. We just saw that this is not the case, however, nor is it the case with English *get* passives or tough constructions. What this means is that there can be no additional thematic role assignment in any of these constructions.

If this conclusion is correct, then it must be incorrect that ‘deliberately’-type adverbs can only associate with NPs that are independently assigned either an agent or an experiencer theta role. This is indeed incorrect. First, to see what ‘deliberately’ does, consider the following pair in English (translations into Mandarin Chinese and Vietnamese make the same point):

- (42) a. James got sick.  
 b. James got sick deliberately.

In (42a), there is no entailment of agentivity. In (42b), there is. Does the grammaticality of (42b) indicate that there is agentivity in (42a)? Clearly, the answer is “no.” Rather, it appears that adverbs like ‘deliberately’ can *add* agentivity to clauses that lack it.

If ‘deliberately’-type adverbs can add agentivity, then they should not require that an agent or experiencer role already be assigned, and they do not. Adjectival and nominal predicates can also be modified with

‘deliberately’-type adverbs, even predicates that are not normally perceived as being under the control of the subject:

- (43) a. (George is a mutant who can control his own height.) George, are you unusually tall today deliberately?  
b. (Johnson is a master of disguise, and changes disguises so often he sometimes loses track of his appearance.) Johnson, do you have a beard right now deliberately?  
c. (Johnson’s disguises include dressing as different occupations.) Johnson, are you a chef deliberately?

Subjects of these types of adjectival and nominal predicates are not assigned agent or experiencer roles, in any theory. These examples therefore show that ‘deliberately’-type adverbs are not restricted to associating with NPs that are assigned agent or experiencer thematic roles. (A reviewer points out that the predicates in the sentences above express transient rather than stable properties. This is true, but it makes our point: the conditions on the use of ‘deliberately’-type adverbs have nothing to do with thematic role assignment.)

More deadly for the thematic role theory is the fact that ‘deliberately’-type adverbs are compatible with unaccusatives. They are even compatible with unaccusatives that have resultative secondary predicates, which may only be predicated of underlying objects (see Levin and Rappaport Hovav 1995 and references there, as well as Rothstein 2004, 84–88 and Williams 2011 for rejection of putative counterexamples):

- (44) a. The sentient, talking door opened wide deliberately.  
b. The sentient, talking door slammed shut deliberately.  
c. The Iceman froze solid deliberately.  
d. The robot broke open deliberately.

These examples are incompatible with the view that ‘deliberately’-type adverbs require agent or experiencer roles, since subjects of unaccusatives are generally regarded as patients or themes. Including the resultative secondary predicate rules out an analysis where the verb has been coerced into an unergative.

Adding an external argument to the above unaccusatives results in the underlying object no longer being able to associate with the ‘deliberately’-type adverb:

- (45) a. Johnson opened the sentient, talking door deliberately. (only Johnson can be deliberate)  
b. Mr. Freeze froze the Iceman solid deliberately. (only Mr. Freeze can be deliberate)  
c. Johnson broke the robot open deliberately. (only Johnson can be deliberate)

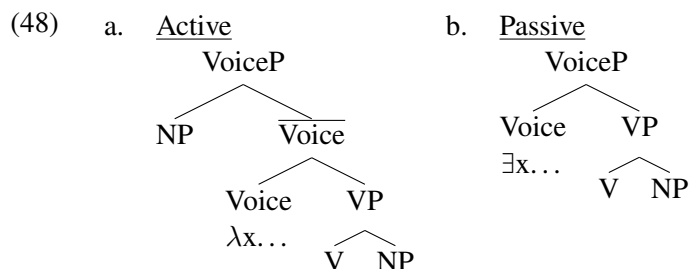
The correct descriptive generalization seems to be that when a ‘deliberately’-type adverb attaches to a predicate, it associates with the structurally highest argument of that predicate. In an unaccusative, this is the underlying object (theme or patient); in a causative, or indeed any transitive, it is the underlying external argument. This is why ‘deliberately’-type adverbs may not modify an object in an active (32a): the object is not the structurally highest argument.

We can see the same constraint at work in experiencer-causative alternations (these sentences may be slightly odd without a supporting context, but in each case only one interpretation is possible):

- (46) a. Carolina fears dogs deliberately. (only Carolina is deliberate)  
b. Dogs frighten Carolina deliberately. (only the dogs are deliberate)
- (47) a. Melinda is angry at Jack deliberately. (only Melinda is deliberate)  
b. Jack angered Melinda deliberately. (only Jack is deliberate)

In the thematic role theory, it should be possible for the adverb to associate with the experiencer object in the (b) examples above, since those NPs meet the condition of being assigned an experiencer role. Yet it cannot. Again, the right descriptive generalization is that ‘deliberately’-type adverbs associate with the structurally *highest* argument of the predicate they attach to.

This statement, combined with our view of the passive, explains why ‘deliberately’-type adverbs may not associate with the surface subject of a *be* passive. As stated above, we analyze the external argument as introduced by the head Voice (Kratzer 1996):



This is still true in the passive (48b), although Voice’s argument is existentially quantified over in the short passive or replaced with a by-phrase in the long passive. In either case, the structurally highest argument is the external argument (‘x’ in the above representations). Movement of the object to the surface subject position is apparently irrelevant; ‘deliberately’-type adverbs seem to care about initial arguments of predicates, not surface position. We assume that this is because they attach to VoiceP, and from there associate with the highest argument in their command domain. If one of the NPs within VoiceP moves to the surface subject position, this has no effect on what ‘deliberately’ associates with. In both the active and the *be* passive, this is only the external argument (*they snubbed her deliberately* and *she was snubbed deliberately*).

The auxiliary *be* takes no NP arguments. As noted above, passives do not need an auxiliary at all (reduced relative clauses, adjectival passives). They can also have a semantically contentless expletive as subject. Since *be* takes no arguments, ‘deliberately’ can only adjoin to VoiceP and associate with the external argument of the main verb, which is interpreted existentially in a short passive, or realized as a by-phrase in a long passive.

From this point of view, the difference between *be* passives and *get* passives must be that *get*, unlike *be*, takes its own argument and does not have a derived subject. This is particularly evident in causative uses of *get*, where the subject of *get* does not correspond to any argument of its complement:<sup>9</sup>

- (49) a. Branson got [the mail sorted]. (passive)  
 b. Branson got [Johnson sorting the mail]. (active)

It is apparently also true in non-causative uses of *get*: in *get* passives generally, there are two predicates, the main verb and *get*. The surface subject is the highest argument of *get*, and so, if ‘deliberately’ attaches to *get*, it associates with the surface subject. If it attaches to the main verb, it again associates with the missing external argument. *Get* passives are then potentially ambiguous, as has been observed in the literature:

- (50) (Reed 2011, (23a–b))  
 a. I think that John deliberately got hit by that truck, don’t you? (John is deliberate)  
 b. What really irks me is what intentionally didn’t get discussed for alleged lack of time. (unexpressed external argument is intentional)

We analyze *get* as selecting either an active or a passive phrase, but the surface subject is an underlying argument of *get* and is not a derived subject. Truth-conditional equivalence between a (non-causative)

<sup>9</sup>We view *get* passives with reflexives, like *Branson got himself killed*, as simply causatives but with a reflexive argument.

*get* passive and the corresponding active comes about because *get* merely predicates its complement of its subject: *the dog broke the vase* is truth-conditionally equivalent to *the vase has the property of having been broken by the dog*. A passive complement to *get* is a property, with abstraction over the missing object position (we spell this out for Vietnamese bi-constructions below; in English *get* passives, we assume that a null operator undergoing A-movement performs the abstraction).

Similarly, tough constructions allow two attachment sites for ‘deliberately’ adverbs, with different interpretations:

- (51) a. The director is deliberately difficult to pin down. (the director is deliberate)  
 b. Such a beautiful piano sonata would be impossible to play accidentally (so I don’t think the cat could have been responsible). (null subject of infinitive acts accidentally)

With tough-constructions, it is clear that there are two separate predicates, the higher tough predicate and the verb in the non-finite clause. ‘Deliberately’ adverbs can modify either one, but if they modify the higher one, they associate with the surface subject; if they modify the lower predicate, they modify the external argument of the non-finite clause (typically null). This is exactly as expected given our description of ‘deliberately’ adverbs. They show that the surface subject in a tough construction did not move there, but is a base-generated subject (Chomsky 1977). The complement of the tough predicate is predicated of it, with that complement abstracted over by a null operator undergoing A-bar movement (Chomsky 1977). ‘Deliberately’ cannot adjoin to the tough predicate when the surface subject is an expletive, because an expletive is not the sort of entity that can be modified by a ‘deliberately’-type adverb (nor is the non-finite clause).

Turning to Vietnamese bi-constructions, what ‘deliberately’-type adverbs show us, then, is that the subject of a bi-construction (and a *bei*-construction in Mandarin) is the subject of a different predicate from the main verb (namely, *bị*). It is a base-generated argument of that predicate, and is not moved from a position as argument of the main verb. If a ‘deliberately’-type adverb attaches to BI, it associates with the surface subject. If it attaches to the lower main verb, it associates with the (possibly null) external argument of the main verb. Both attachments and interpretations are possible, with different positions for each interpretation:

- (52) a. Hân vô tình            bị đánh.  
 Han unintentionally BI hit  
 ‘Han was hit unintentionally (and suffered).’ (Han is unintentional)  
 b. Hân bị Nam vô tình            đánh.  
 Han BI Nam unintentionally hit  
 ‘Han was hit by Nam unintentionally (and suffered).’ (Nam is unintentional)

Mandarin Chinese can also have both associations, sometimes at the same time:

- (53) Zhangsan guyi            bei buhuaihaoyidi piping-le.  
 Zhangsan deliberately BEI maliciously criticize-Per  
 ‘Zhangsan deliberately got maliciously criticized.’ (Zhangsan is deliberate and implicit agent is malicious; Huang 2013, note 3)

What this shows is that Vietnamese bi-constructions and Mandarin Chinese *bei*-constructions have two predicates both of which take NP arguments, like English *get* passives and unlike English *be* passives.

It is important to note that this has nothing to do with the status of any of these constructions as passives. English *be* and *get* both embed passive clauses. So do Vietnamese BI/DUOC and Mandarin BEI. The status of the surface subject of the clause as derived or base-generated is irrelevant to the status of the clause (or part of it) as passive. Thus, in causative *get* passives like *John got Branson fired*, the complement [*Branson*



*fired*] is passive. The fact that it is embedded under a causative makes no difference, and does not make this in any way “non-canonical.” The same is true of bi- and bei-constructions: when they embed passive clauses, those clauses are simply passive, and when they embed active clauses, those clauses are simply active.

Adverbs like ‘deliberately’, then, do not show anything about thematic role assignment. They can associate with patients/themes as well as experiencers and agents, and there are experiencers that they cannot associate with. Bi- and bei-constructions are also truth-conditionally equivalent to their simple counterparts. What these adverbs do show is how many predicates are present in the sentence, and whether the surface subject is a derived one or not. They indicate that the surface subject of a Vietnamese bi-construction is an argument of the BI morpheme, and not the main verb. The same is true of Mandarin bei-constructions and English *get* passives and *tough* constructions.<sup>10</sup>

Huang (2013) proposes that bei-constructions in Mandarin are ambiguous between a raising analysis and a control analysis. The control analysis is essentially what we have arrived at here, with the surface subject base-generated and not moved. However, short-distance bei-constructions, according to Huang (2013), can instead involve direct movement from object to subject position across *bei*, rather than a base-generated subject. The only evidence that Huang presents for this contention is idiom chunks, which, Huang assumes, can only be separated from the rest of the idiom by A-movement:

- (54) Niu dou bei (ta yi-ge ren) chui guang le.  
 cow all BEI (3S one-CL person) blow finished Perf  
 ‘All the cows got blown away clean (by him single-handedly).’  
 Idiomatic: ‘All the bluffing was done (by him single-handedly).’

The same argument has been given for English *get* passives, which permit some idioms (see the discussion and references in Huang 2013):

- (55) (Fox and Grodzinsky 1998, 315)  
 a. No expense gets spared when Rich Eddie is in town.  
 b. In the end, advantage always gets taken of John.

Above we showed that *get* passives are compatible with ‘deliberately’-type adverbs; given the distribution of ‘deliberately’-type adverbs, the subject of a *get* passive must not be an argument of the main verb. Or (and this is Huang’s position), *get* passives are ambiguous between movement and non-movement, and on the movement derivation the surface subject would start out as an argument of the main verb.

<sup>10</sup>Note that we predict that ‘deliberately’ adverbs will be incompatible with raising predicates like *seems*. To some extent this seems to be true; attested examples like (i) actually seem to have ‘deliberately’ interpreted as modifying the nonfinite verb and not *seems*:

- (i) The ridicule that Machiavelli deliberately seems to court is the same we have already seen heaped on the character of Thrasymachus and the sophist Hippias.  
 (ii) Matt Damon deliberately appears to be boring in interviews.

On the other hand, attested examples like (ii) do seem to modify the raising verb. We suggest that some raising verbs are actually ambiguous between raising and control, following Lasnik and Saito (1992); it is only on the control analysis that ‘deliberately’ is able to modify the higher verb. Consistent with this analysis is the fact that, while ‘deliberately’ is compatible with expletive passives (iii), it is incompatible with an expletive as subject of a raising predicate (iv):

- (iii) There were three bridges deliberately left intact during the war.  
 (iv) \* There deliberately appear to have been three bridges left intact during the war.

The expletive in (iv) is compatible only with raising and not with control.

However, the idiom argument is a particularly weak one. Chunks of idioms can undergo A-bar movement, in violation of Huang's (2013) assumptions. The following are examples of chunks of idioms undergoing topicalization and relativization in Mandarin:<sup>11</sup>

- (56) (Huang, Li, and Li 2009, ch.6, (37a), (87a))
- a. Zhe zhong cu, ni qianwan chi-bu-de.  
this kind vinegar you certainly eat-Neg-obtain  
'This kind of vinegar, you should definitely not eat.'  
Idiomatic: 'You definitely should not be jealous of this.'
  - b. Ta chi de cu bi shei dou da.  
he eat DE vinegar compare who all big  
'The vinegar that he eats is greater than anyone else's.'  
Idiomatic: 'His jealousy is greater than anyone else's.'

Idiom chunks can also participate in control of PRO and can even be referred to with pronouns (see Nunberg, Sag, and Wasow 1994 and references there):

- (57) (Nunberg, Sag, and Wasow 1994, (50b,c))
- a. An old dog never wants to be taught new tricks.
  - b. Every lion prefers to be bearded in his den.
- (58)
- a. A: Advantage always gets taken of John. B: Yes it does, doesn't it?
  - b. We thought the cat was out of the bag but it wasn't.
  - c. We thought the shit would hit the fan, but luckily it didn't.
  - d. We thought someone would spill the beans, and indeed someone did spill them.

They are also compatible with null operator constructions, such as tough-movement:

- (59)
- a. The hatchet is hard to bury after long years of war. (Berman 1973, (4–5))
  - b. ... the line can be hard to toe when push comes to shove. (Ruwet 1991, 186)
  - c. Some strings are harder to pull than others. (Nunberg, Sag, and Wasow 1994, (49))

It is simply false that a piece of an idiom can only be separated from the rest of its idiom by an A-movement dependency. Other dependencies are possible: A-bar movement, control, pronominal coreference, predication in null operator constructions.

This being so, there is no reason to think that *get* passives or Mandarin *bei*-constructions ever involve direct movement of an object to the surface subject position. In English, there is even evidence against this possibility. *Get* passives, unlike *be* passives, are incompatible with constructions where the agreeing subject never moves all the way to the surface subject position. For instance, they do not permit locative inversion (Postal 2004), nor do they permit the expletive passive (Huang 2013, note 2 credits the latter observation to Jeremy Hartman):<sup>12</sup>

- (60)
- a. On this site were built numerous monuments and temples.
  - b. \* On this site got built numerous monuments and temples.

<sup>11</sup>Huang (2013) says that when an idiom chunk appears in a long-distance *bei*-construction in Mandarin, or one with the particle *suo*, it loses its idiomatic reading. This seems to be in direct conflict with the topicalization and relativization possibilities.

<sup>12</sup>Adding a full relative clause in (61) forces these sentences to be monoclausal expletive passives, and not reduced relative clauses (see Deal 2009, note 28), which would require *be* because they are copular sentences. These are not copular sentences, and so it is significant that *get* is not allowed.

- (61) a. There were three civilians [that were passive onlookers] killed in that attack.  
 b. \* There got three civilians [that were passive onlookers] killed in that attack.  
 (cf. Three civilians that were passive onlookers got killed in that attack.)

This follows, if these two constructions require an underlying argument of the main verb to move only partway to the subject position. The subject of a *get* passive is not an underlying argument of the main verb at all. If it could ever be, as in the ambiguity hypothesis, it should be compatible with these two constructions. Below, we will also show that reconstruction is impossible in Vietnamese bi-constructions, again indicating that no direct movement derivation is ever a possibility.

We conclude that there is no evidence for *get* passives or b(e)i-constructions being ambiguous, contra Huang 2013 (and many other publications), and there is evidence that they *never* involve direct movement from an object position to a subject position. The surface subject is always an underlying subject, and as such it is compatible with ‘deliberately’-type adverbs. It does not receive an agent or experiencer theta role, but is instead simply the subject of a predicate.<sup>13</sup>

To summarize this subsection, we have tried to clarify what adverbs like ‘deliberately’ show. They do not show anything about thematic role assignment, but do indicate whether a subject is derived or not. We have concluded that subjects of *be* passives are derived, but subjects of *get* passives, tough constructions, and Vietnamese bi-constructions are base-generated as subjects. We have also seen that all of these constructions are truth-conditionally equivalent to their corresponding variants. Capturing this will be important in the next section, where we investigate the syntax and semantics of Vietnamese bi-constructions in detail.

### 3 An Analysis of Vietnamese Bi-Constructions

We now turn to the second part of our paper, where we offer a formal analysis of Vietnamese bi-constructions. We have already concluded several things about them: the subject of BI/DUOC is base-generated and not derived; BI and DUOC simply predicate their complement of their subject, so that they are truth-conditionally equivalent to the corresponding simple sentence; and BI and DUOC are not themselves passive but may embed either an active or a passive complement.

The analysis we propose builds on previous work that has posited a null operator in b(e)i-constructions, apparently first suggested by Feng (1995) and developed in Huang (1999), among others. Our analysis improves on these by developing a precise formal syntax and semantics. We also propose base-generation of this operator rather than movement in Vietnamese, although languages may differ in this regard; we propose that differences between Mandarin Chinese and Vietnamese fall out from this single point of divergence.

#### 3.1 Further Background

We have already seen that Vietnamese bi-constructions can have one of two morphemes, BI or DUOC, with differences in meaning (suffering versus benefit). We have also seen that bi-constructions come in passive and active varieties. We have also seen that *by*-phrases are possible with the passive ones, although this

<sup>13</sup>A reviewer asks what theta role such subjects receive. The answer is that no existing theta role label is appropriate. Subjects of predicates are simply subjects of predicates. Identificational statements like *that man over there is Johnson*, or property-attributing sentences like *that woman is tall/a detective*, do not fit into traditional thematic categories. Calling them “themes,” and hence lumping them with many underlying objects of verbs, is certainly not appropriate. What is important is that the bi-construction be analyzed as truth-conditionally equivalent to the corresponding sentence without BI. It does come out as such in our analysis, as the formal semantics given below will show. Adding an additional thematic role like ‘agent’ or ‘experiencer’ will necessarily make them non-equivalent, as discussed above.

To be theoretically precise, we adopt the Principle of Full Interpretation as subsuming the Theta Criterion (Chomsky 1993). The Principle of Full Interpretation requires that all elements in the derivation receive an interpretation. Function application is one way this is ensured. It is not necessary to assume an inventory of thematic roles such that every argument NP must receive a role from that inventory.

possibility may be confined to journalistic writing (and we will not address it further here). We have also seen that the surface subject of a bi-construction can correspond to any role in the main predicate: it can be the external argument, an internal argument, the sole argument of an intransitive. Again, only those that have existential quantification over the logical external argument of the main verb are actually passive. We also saw one instance of what we will call *possessive bi-constructions*, where the surface subject corresponds to a possessor of an argument. Another example of this appears below:

- (62) Tôi bị (Nga) làm gãy một ngón tay.  
 I BI Nga make snap one finger  
 ‘I had Nga/someone snap one of my fingers (and suffered).’ (based on Simpson and Ho 2008, (19))

As can be seen from the above example, possessive bi-constructions can be either passive or active, with passive bi-constructions interpreted existentially. Possessive bi-constructions can also be long-distance, like bi-constructions generally:

- (63) Ông ấy bị chính quyền cho người đến khám nhà.  
 he BI government send person come check house  
 ‘He had the government send people to check his house (and suffered).’

Vietnamese only permits a possession relation in such bi-constructions. There is no such thing as an adversity bi-construction without possession (Simpson and Ho 2008, 2013):

- (64) a. \*Tôi bị Nam ói.  
 I BI Nam vomit  
 ‘I had Nam vomit (and suffered).’  
 b. Tôi bị Nam ói trên áo.  
 I BI Nam vomit on shirt  
 ‘I had Nam vomit on my shirt (and suffered).’

Bi-constructions with intransitives can also be long-distance, like active bi-constructions generally. In a survey of three Northern speakers and five Central speakers, seven found the following sentence completely acceptable, and one marginal (3 on a four-point scale):

- (65) Nam được bác sĩ nói là (Nam) nên ói cho khỏe.  
 Nam DUOC doctor say Comp (Nam) ought vomit for health  
 ‘Nam had the doctor say that he ought to vomit for better health (and benefited).’

Note that the argument position in the lower clause can optionally be pronounced; see below.

One last data point before proceeding: According to Simpson and Ho (2008, 2013), Vietnamese active bi-constructions can be long-distance, but passive bi-constructions may not be:

- (66) (based on Simpson and Ho 2008, (15))  
 a. Nam bị Nga bảo cảnh sát đến bắt.  
 Nam BI Nga tell police come arrest  
 ‘Nga told the police to come arrest Nam.’  
 b. \*Nam bị bảo cảnh sát đến bắt.  
 Nam BI tell police come arrest  
 ‘Nam had (someone) tell the police to come arrest him.’

The same claim has been made for Mandarin Chinese (e.g., Huang 1999). We will show that this is not always true, however, and some passive bi-constructions can be long-distance.

### 3.2 The Meaning of Vietnamese Bi-Constructions

We turn now to the meaning of bi-constructions. We have seen two things that might seem contradictory: first, bi-constructions are truth-conditionally equivalent to their counterparts without BI/DUOC; and second, bi-constructions with BI have a meaning of suffering while DUOC has a meaning of benefit. How could BI and DUOC both add meaning and not add meaning?

Let us begin by turning back to the claim, from Huang (1999), that the BEI morpheme in Mandarin Chinese assigns an experiencer thematic role to its subject. An experiencer thematic role might be thought to make perfect sense for Vietnamese, too, where the BI morphemes involve either suffering or benefit, clearly an experience. However, we already saw reasons to think that this is not correct. Another reason is that inanimates, which cannot be experiencers, are perfectly fine as subjects of b(e)i-constructions in both languages:

(67) *Mandarin Chinese*

- a. Nei-feng xin bei Lisi dai-hui ziji de jia qu le.  
that-CL letter BEI Lisi bring-back self DE home go Perf  
'That letter was brought back to self's (Lisi's) home by Lisi.' (Huang 1999, (16))
- b. Zhe xie shiqing bu neng bei tamen suo liaojie.  
these CL thing Neg can BEI they SUO understand  
'These things cannot be understood by them.' (Huang 1999, (31))

(68) *Vietnamese*

- a. Nhà này bị Nam đốt.  
house this BI Nam burn  
'This house was burned by Nam (and someone suffered).'
- b. Cây cầu này cần được phá đi.  
CL bridge this need DUOC destroy  
'This bridge needs to be destroyed (and someone will benefit).'

In the Vietnamese examples, the inanimate subject is *not* the entity that is understood to suffer or benefit; rather, the speaker has the expectation that the house burning caused suffering for some individual(s), and the expectation that destroying the bridge will bring benefit to some individual(s). This means that the surface subject itself is not an experiencer; rather, in Vietnamese, the experiencer of the suffering or benefit is some individual(s), who may or may not be identical with the surface subject. This is true even when the surface subject is animate, as in the following examples:

- (69)
- a. Bọn biệt kích xâm nhập vào biên giới cần phải được tiêu diệt.  
group special force enter into border need must DUOC erase  
'The special forces crossing the border need to be eradicated (and someone will benefit).'  
(bad for special forces, good from speaker's perspective)
  - b. Nam bị yêu nhiều quá.  
Nam BI love much too  
'Nam is loved too much (and someone suffers).' (Nam might think this is good, but from speaker's perspective it is bad)
  - c. Nam bị cho quá nhiều tiền.  
Nam BI give too much money  
'Nam was given too much money (and someone suffered).' (situation: Nam is very happy, but the rest of the town is suffering)

- d. Nam cần được loại ra khỏi cộng đồng.  
 Nam need DUOC erase from community  
 ‘Nam needs to be erased from the community (and someone will benefit).’

In all of these cases, the suffering/benefit accrues not to the surface subject, but to other people. Note that it is true that in the default case, the surface subject is the sufferer/beneficiary, but this is not necessarily the case, with either animates or inanimates. In our survey of eight native speakers of Vietnamese, four found (69a) completely acceptable (4/4), three gave it 3 out of 4, and one 2 out of 4. Regarding (69c), three found it fully acceptable (4/4), one gave it 3 out of 4, three gave it 2 out of 4, and one judged it unacceptable. Five of the eight speakers judged (69d) fully acceptable, one gave it 3 out of 4, one 2 out of 4, and one judged it unacceptable. Acceptability seems to vary somewhat from speaker to speaker and (more importantly) from context to context, but we believe that, for most speakers, it is not necessary for an animate surface subject to be interpreted as the sufferer or beneficiary.

Something similar is true in Mandarin Chinese. Take the following example:

- (70) Zhangsan bei Lisi da le.  
 Zhangsan BEI Lisi hit Perf  
 ‘Zhangsan was hit by Lisi.’ (Huang 1999, (1))

Imagine the following scenario: Zhangsan is a giant, hulking sumo wrestler. Lisi is a toddler. Lisi toddles up to Zhangsan and hits him, but Zhangsan never even notices. Our Chinese informants tell us that this sentence can describe this scenario. It is not necessary that Zhangsan be affected in any way, or experience anything. Rather, from the speaker’s perspective, Lisi hitting Zhangsan was in some way a bad thing to do. We will not attempt to spell out a semantics for Mandarin Chinese, but from this example it is clear that the surface subject is not an experiencer even when it is animate. Any meaning that comes from BEI is some kind of speaker evaluation. We spell this out in detail for Vietnamese below (but do not yet have a concrete proposal for Mandarin Chinese).

If there is any experiencing semantics in b(e)i-constructions, then, the surface subject is not necessarily the experiencer.<sup>14</sup> We also saw above that bi-constructions seem to be truth-conditionally equivalent to their counterparts without BI/DUOC, since asserting one but denying the other leads to a contradiction.

This suggests that the meaning of suffering or benefit is a type of projective, or not-at-issue meaning, similar to a conventional implicature or a presupposition (recent references on this type of meaning include Potts 2005, Tonhauser *et al.* 2013, and many others). We will refer to this meaning as a *not-at-issue entailment*. As far as at-issue meaning goes, BI and DUOC do nothing but predicate their complement of their specifier. On the at-issue level, then, sentences with BI/DUOC are identical to the corresponding sentences without BI/DUOC. However, they also introduce a not-at-issue entailment: BI says that someone suffers, and DUOC says that someone benefits.

If the meaning contributed by the BI morpheme in Vietnamese is a type of projective meaning, we expect it to project in standard contexts where projective meaning does (see Langendoen and Savin 1971, Karttunen 1973, Soames 1982, Potts 2005, among others). This is correct. Consider the following yes-no question and answer:

- (71) Q: Nam bị ói à?  
 Nam BI vomit Q

<sup>14</sup>A reviewer suggests that in an analysis with an experiencer thematic role like Huang’s, b(e)i-constructions can be translated as, for example, ‘Zhangsan experienced Lisi hitting him.’ According to this reviewer, ‘Lisi hit Zhangsan but Zhangsan did not experience Lisi hitting him’ is also a contradiction (in English). This is false. In the situation described above, where Zhangsan is a hulking sumo wrestler who never notices Lisi hitting him, the sentence is not a contradiction. The verb *experience* (and hence the corresponding thematic role) adds an additional meaning component, and is incompatible with the experiencer never experiencing anything. Hence, the experiencer role analysis must be rejected. Similarly for any notion of “affectedness,” since in our sumo wrestler example the surface subject is not affected in any way.

‘Did Nam vomit (and suffer)?’

A: Không.  
Neg

‘No.’ (Can only mean no vomiting happened; cannot respond this way if Nam did vomit, but did not suffer.)

If the notion of suffering were at-issue, it should be possible to respond “no” when only that part of the yes-no question is incorrect. This is not possible in Vietnamese, however. Answering “no” can only deny the at-issue part of the sentence, which in this case is only the assertion that Nam vomited. This is exactly like the not-at-issue entailment associated with words like *but* (Grice 1975, Bach 1999):

(72) Q: Is George poor but happy?

A: No.

Answering “no” cannot negate the questioner’s entailment that poor and happy are usual contradictory. It can only negate the at-issue meaning of the sentence, which is that George is both poor and happy (note that *George is poor but happy but George is not poor and happy* is a contradiction).

Negation, another element that cannot target projective meaning, can also only negate the main verb, it cannot negate the suffering/benefit:

(73) Nam không bị ói.

Nam Neg BI vomit

‘Nam didn’t vomit (and suffer).’

Here, negation only negates that Nam vomited; this sentence cannot mean that Nam did vomit, but no one suffered from this vomiting (without special prosody; see below).

The same is true of English *but*:

(74) George is not poor but happy.

In this example, negation only negates that George is the conjunction of poor and happy. It is impossible for this sentence to mean that George *is* poor and happy, but those are not usually incompatible.

Another example, this time with DUOC, shows clearly how the meaning of DUOC escapes the scope of negation:

(75) Các vấn đề này đã không được giải thích một cách rõ ràng.

PL issue this ASP NEG DUOC explain clearly

‘These issues were not explained clearly (someone would benefit).’

This sentence has negation in it, and asserts that the issues were not explained clearly. However, the not-at-issue entailment is positive: clearly explaining the issues would benefit people. This is always true of negative bi-constructions: the not-at-issue entailment never involves negation. (For another example, see (ib) in note 15.)

Another context where not-at-issue meaning behaves differently from at-issue meaning is in conditionals. In Vietnamese, the notion of suffering/benefit does not add a condition to the conditional:

(76) Nếu anh bị ói thì tôi sẽ trả tiền lại.

if you BI vomit then I Fut return money back

‘If you vomit (and suffer), I will return your money.’

In this example (uttered by a doctor), if the individual involved does vomit, but the vomiting actually benefits them rather than causing them suffering (by saving them from food poisoning, for example), they can still go claim their money, because the only condition that is specified in the antecedent clause is that they vomit. They do not also have to suffer. The utterer of the sentence believes that vomiting will cause suffering, but this does not impose an additional condition for the consequent clause to be true. Again, this is exactly like English *but*:

(77) If George turns out poor but happy, I'll give you \$100.

If the entailment that poor and happy are usually incompatible is false, you can still claim the \$100. The only requirement of this conditional is that George be poor and happy.

The not-at-issue entailment associated with words like *but* was called a *conventional implicature* by Grice (1975). Potts (2005) instead applied this term to other classes of elements, and viewed words like *but* as “merely multidimensional.” To avoid any terminological confusion, we will refer to the additional meaning of the Vietnamese bi-construction as a *not-at-issue entailment*. See McCready 2010, Gutzmann 2013, Tonhauser *et al.* 2013 on various different types of not-at-issue meanings.

Like some other not-at-issue entailments, when a Vietnamese bi-construction is embedded under a propositional attitude verb, the entailment of suffering/benefit can be attributed to the higher subject rather than to the speaker:

(78) Nga tin là Nam bị yêu nhiều quá, còn tôi thì cho là Nam được yêu nhiều quá.  
 Nga believes that Nam BI love much too but I Top think Comp Nam DUOC love much too  
 ‘Nga thinks that Nam is loved too much (and suffers), but I think that he is loved too much (and benefits).’

This distinguishes the not-at-issue entailment of bi-constructions from the types of conventional implicature studied by Potts (2005). (In what follows, for brevity we will refer to the speaker as the source of the not-at-issue entailment, but it should be kept in mind that in embedded contexts the source may shift from the speaker to the bearer of the attitude in the matrix clause.)

All of the data above show that the notion of suffering or benefit that is contributed to a clause by the BI morpheme in Vietnamese is a not-at-issue entailment, and is not part of the at-issue meaning of the bi-construction at all. This is consistent with the fact, reported in the previous section, that the at-issue meaning of a bi-construction sentence is identical to that of the corresponding sentence without BI/DUOC.<sup>15</sup>

<sup>15</sup> A reviewer points out that bi-constructions can be used in scientific and journalistic writing apparently without any entailment of suffering or benefit. However, while it is weak, the entailment of suffering or benefit is still present in such contexts. The writer always has a choice of whether to use BI or DUOC, and the choice creates an entailment. Below are two examples from a science article in the Vietnamese program of Radio France International. One has BI, the other DUOC, and those two elements are not interchangeable:

- (i) a. Ủy ban Châu Âu đang vận động để thông qua một quy định cấm sử dụng các thuốc thuộc nhóm néonicotinoide và organophosphoré. Đề nghị này **bị** đa số các nước thành viên bác bỏ vào giữa tháng 3/2013,...
- ‘The European Commission has been seeking agreement on a ban on three insecticides related to néonicotinoide and organophosphoré. *The proposal is rejected by most of the country members in the middle of March, 2013,...*’
- b. Còn tại Hoa Kỳ, nhiều người nuôi ong hay các tổ chức bảo vệ môi trường đã tiến hành kiện cơ quan bảo vệ môi trường Hoa Kỳ (EPA) đã không có các biện pháp bảo vệ ong và vôi vĩa cho đưa ra thị trường đến 2/3 số lượng thuốc trừ sâu, không **được** trải nghiệm một cách nghiêm túc.
- ‘In America bee breeders and environmental groups have sued the EPA for not having measures to protect bees and quickly introducing into the market up to 2/3 of pesticides *which are not seriously tested.*’

If there were no not-at-issue entailment in scientific and journalistic writing styles, BI and DUOC should be freely interchangeable, but they are not. Even in such writing styles, then, BI and DUOC give rise to a not-at-issue entailment (although the extent of the suffering or benefit may be very small).



Above we mentioned that *được* has another use as a modal. Contrasting bi-construction DUOC with modal DUOC will help to strengthen our contention that bi-construction DUOC's meaning of benefit is a not-at-issue meaning and not part of the at-issue content of the sentence. Consider the following sentence, which is ambiguous:

- (79) Nam không được chơi bóng đá.  
 Nam Neg DUOC play ball kick  
 'Nam doesn't play football (and benefit).' or 'Nam is not allowed to play football.'

DUOC here can be either bi-construction DUOC, which entails benefit, or a modal verb of permission. The two differ in how negation affects them. If it is bi-construction DUOC, negation negates the main verb, and so the sentence cannot describe a situation where Nam is currently playing football. If DUOC is instead interpreted as a modal, then negation negates the modal, and the sentence can be said in a situation where Nam is currently playing football (he is doing something he is not allowed to do). BI does not have a modal use, and so (80) below cannot describe a situation where Nam is currently singing:

- (80) Nam không bị hát bài đó.  
 Nam Neg BI sing song that  
 'Nam doesn't sing that song (and suffer).'

The modal use of DUOC adds at-issue meaning, which can be targeted by negation. Modal DUOC can also be negated while the sentence without DUOC is affirmed without contradiction:<sup>16</sup>

- (81) Nam chơi bóng đá nhưng Nam không được chơi bóng đá.  
 Nam play ball kick but Nam Neg DUOC play ball kick  
 'Nam is playing football but Nam is not allowed to play football.' (not a contradiction)

These differences between modal DUOC and bi-construction DUOC follow if modal DUOC contributes its meaning on the at-issue level, but bi-construction DUOC does not.<sup>17</sup>

We showed above that negation by itself cannot negate the benefit or suffering. However, it is possible to explicitly contrast the two, with prosodic emphasis:

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Example (ib) also clearly illustrates how DUOC escapes the scope of negation. The at-issue meaning of the relevant clause is that 2/3 of pesticides are not seriously tested. The not-at-issue entailment, in contrast, is that the speaker's expectation is that testing these pesticides would benefit people. See more on this in the text.

<sup>16</sup>A more natural expression of the same thought is the following:

- (i) Nam không được chơi bóng đá mà vẫn chơi.  
 Nam Neg DUOC play ball kick but still play  
 'Nam is not allowed to play football but he still plays it.'

<sup>17</sup>A reviewer suggests that modals pass our yes-no question test for not-at-issue meaning. According to this reviewer, responding "no" to a question with *should* cannot mean that the scenario described by the sentence takes place, but that is not an obligation. This is false, as the following shows:

- (i) A: Should dogs eat chocolate?  
 B: No (but they all do).

B's response is compatible with a situation where all the dogs in the context eat chocolate, as the comment in parentheses shows. Additionally, as we showed for Vietnamese, there is no truth-conditional equivalence with modals: *Dogs eat chocolate but dogs should not eat chocolate* is not a contradiction.

- (82) Q: Nam bị ói à?  
 Nam BI vomit Q  
 ‘Did Nam vomit (and suffer)?’  
 A: Không bị ói, mà là được ói.  
 Neg BI vomit but Foc DUOC vomit  
 ‘He didn’t vomit (and suffer), he vomited (and benefited).’

In addition, alternative questions can target the BI morpheme and contrast the two:

- (83) Q: Nam bị hay được ly dị?  
 Nam BI or DUOC divorce  
 ‘Did Nam suffer or benefit from divorcing?’  
 A1: Được.  
 A2: Bị.

This does not mean that the suffering/benefit must be part of the at-issue tier. Other elements with not-at-issue meaning can also be explicitly contrasted:

- (84) He’s not poor BUT happy, he’s poor AND happy!  
 (85) Q: Did Obama STOP smoking, or START?  
 A1: He STARTED smoking.  
 A2: He STOPPED smoking.  
 (86) Q: Did Obama dismiss the head of his reelection campaign?  
 A: He dismissed ONE of the heads of his reelection campaign.

One can also explicitly challenge and deny presuppositions and not-at-issue entailments: “What do you mean, ‘poor but happy’? In my experience, poor people are usually happy!”

To summarize so far, the meaning that is contributed by the BI morpheme in Vietnamese is a not-at-issue entailment, and is not part of the at-issue meaning of the clause. It escapes the scope of elements like negation. Investigating further, we can see that the not-at-issue entailment involves speaker expectations, and not the real world at all. Consider the following:

- (87) Nam bị Nga ly dị.  
 Nam BI Nga divorce  
 ‘Nam had Nga divorce him (and suffered).’

This sentence can be uttered by someone who knows full well that the divorce led to benefit for all concerned. Nga is happy, Nam is happy, both are better off than they were when married, as is everyone else involved (children, in-laws, etc.). What the sentence entails, however, is that the speaker’s expectation was that the divorce would lead to suffering. This expectation might not have been fulfilled and the speaker can be aware of that fact, but the sentence expresses that the expectation was there. The same is true for every example with BI or DUOC: it is the speaker’s expectation that suffering or benefit would result. Sentences with BI or DUOC can be truthfully uttered even when this expectation was not met, and the speaker is aware of that.

This points to the not-at-issue entailment of the BI morpheme being modalized. Our analysis attempts to capture this.<sup>18</sup>

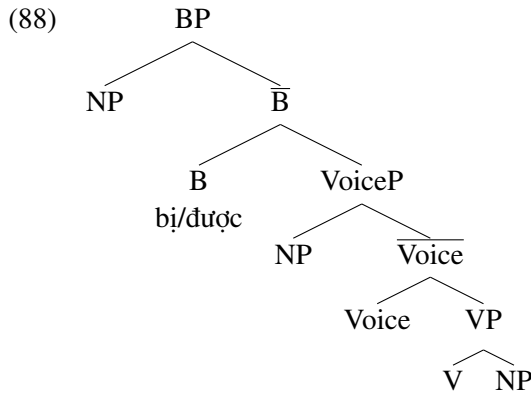
<sup>18</sup>We believe that the meaning of bei-constructions in Mandarin Chinese is probably also a modalized not-at-issue entailment of some sort, but we have not yet been able to investigate this in any detail.

### 3.3 Analysis: Active Bi-Constructions

As mentioned at the outset, our analysis adopts some ideas from previous analyses, in particular predication and a null operator that turns the complement of BI into a predicate. These elements are present in several previous analyses, for instance Huang (1999) and Simpson and Ho (2008, 2013), but we wed them to an explicit semantics and also posit base-generation rather than movement of the operator. We believe this leads to a deeper understanding and a more accurate model of the construction.

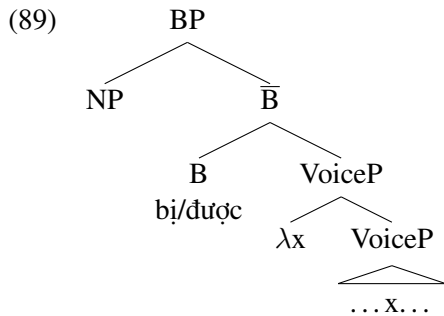
We begin with active bi-constructions. As shown above, as far as at-issue meaning is concerned, active bi-constructions are truth-conditionally equivalent to the corresponding sentence without BI. The meaning of the morphemes BI and DUOC seems to be entirely not-at-issue. This meaning will remain constant across both active and passive bi-constructions in our analysis, capturing what they have in common. Passive bi-constructions will involve passive Voice, which existentially quantifies over the external argument.

We propose that the morphemes BI and DUOC are syntactic heads, which we assign category “B” (a type of functional head). Syntactically, they select a VoiceP as internal argument and an NP as external argument:



Following Kratzer (1996) and much other work, we take external arguments to be merged in the Spec of VoiceP. Since an external argument is present in active bi-constructions, there must be (at least) a VoiceP.

Semantically, the B head requires that its complement be a property (type  $\langle e, \langle v, t \rangle \rangle$  in the event semantics we use), which it predicates of the NP in its specifier. VoiceP is turned into a property by adjoining a lambda operator to it, which must bind some NP within the VoiceP as a variable:



On the at-issue tier of meaning, the B head simply asserts that P, the property denoted by its complement, is true of the NP in its specifier. However, it also adds a not-at-issue entailment. We use McCready’s (2010) formalism for mixed-content items, where the symbol “♦” separates the two tiers of meaning. At-issue meaning precedes the ♦, while not-at-issue content follows it. As mentioned above, the not-at-issue entailment is modal, which we formalize as quantification over possible worlds, here worlds that are compatible with speaker expectations (given by the doxastic function relativized to the speaker  $\text{Dox}_S$ ). We also

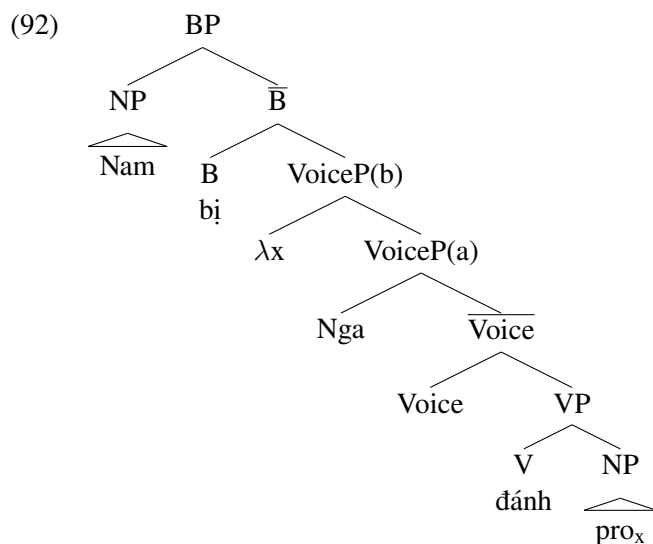
existentially quantify the individual who suffers or benefits: there is required to be someone who suffers or benefits, and this may or may not be identical to one of the NPs in the sentence.

- (90) a.  $\llbracket \text{bị} \rrbracket = \lambda P \lambda x \lambda e. P(x)(e) \blacklozenge \lambda P \lambda x. \forall w' \in \text{Dox}_S(w). \exists e' \text{ in } w'. P(x)(e') \rightarrow \exists y. \text{suffer}(y) \text{ in } w'$   
 b.  $\llbracket \text{đượ} \rrbracket = \lambda P \lambda x \lambda e. P(x)(e) \blacklozenge \lambda P \lambda x. \forall w' \in \text{Dox}_S(w). \exists e' \text{ in } w'. P(x)(e') \rightarrow \exists y. \text{benefit}(y) \text{ in } w'$

Paraphrasing, the not-at-issue entailment says that in all worlds consistent with the speaker's expectations, if there is an event of P applying to x, then there is some individual(s) who suffers or benefits.

To take a simple example, the sentence in (91) has the structure and denotation in (92):

- (91) Nam bị Nga đánh.  
 Nam BI Nga hit  
 'Nam was hit by Nga (and suffered).'



- a.  $\llbracket \text{đánh} \rrbracket = \lambda x \lambda e. \text{hitting}(e, x)$   
 b.  $\llbracket \text{VP} \rrbracket = \lambda e. \text{hitting}(e, \text{pro})$   
 c.  $\llbracket \text{Voice} \rrbracket = \lambda x \lambda e. \text{Agent}(e, x)$   
 d.  $\llbracket \overline{\text{Voice}} \rrbracket = \lambda x \lambda e. \text{hitting}(e, \text{pro}) \ \& \ \text{Agent}(e, x)$  (by Event Identification, Kratzer 1996)  
 e.  $\llbracket \text{VoiceP}(a) \rrbracket = \lambda e. \text{hitting}(e, \text{pro}) \ \& \ \text{Agent}(e, \text{Nga})$   
 f.  $\llbracket \text{VoiceP}(b) \rrbracket = \lambda x \lambda e. \text{hitting}(e, x) \ \& \ \text{Agent}(e, \text{Nga})$   
 g.  $\llbracket \overline{\text{B}} \rrbracket = \lambda x \lambda e. (\lambda y. \lambda e'. \text{hitting}(e', y) \ \& \ \text{Agent}(e', \text{Nga}))(x)(e) \blacklozenge \lambda x. \forall w' \in \text{Dox}_S(w). \exists e'' \text{ in } w'. \text{hitting}(e'', \text{Nam}) \ \& \ \text{Agent}(e'', x) \rightarrow \exists y. \text{suffer}(y) \text{ in } w'$   
 h.  $\llbracket \text{BP} \rrbracket = \lambda e. (\lambda y. \lambda e'. \text{hitting}(e', y) \ \& \ \text{Agent}(e', \text{Nga}))(\text{Nam})(e) \blacklozenge \forall w' \in \text{Dox}_S(w). \exists e'' \text{ in } w'. \text{hitting}(e'', \text{Nam}) \ \& \ \text{Agent}(e'', \text{Nga}) \rightarrow \exists y. \text{suffer}(y) \text{ in } w'$

Applying function application, BP is simply a set of hitting events, where Nam is hit and Nga is the hitter, exactly like the corresponding sentence without BI. This captures the truth-conditional equivalence that we observed above: both sentences will be true iff there is an event of Nga hitting Nam. In addition, there is a not-at-issue entailment, to the effect that any world consistent with speaker expectations where such an event takes place is a world where someone suffers. Without any other context, the one who suffers will probably be Nam: by default an animate subject is the most likely sufferer. However, in the type of context described above for Chinese, where Nam is a hulking sumo wrestler who never even notices that toddler Nga hits her, Nga can be the one who is expected to suffer. (But again this is an expectation: the sentence can be truthfully uttered even when the speaker knows that no one suffered.)

Higher tense will bind the event variable on the at-issue tier. In a past tense context, the sentence will assert that there exists an event of Nga hitting Nam, such that that event preceded the utterance time. Note that higher operators like aspect, tense, modals, and negation only operate on the at-issue tier of meaning. The not-at-issue tier is outside of their scope, as follows in the McCready formalism we use (see McCready 2010 and Potts 2005). To illustrate, consider the following example:

- (93) Các vấn đề này đã không được Nam giải thích.  
 PL issue this ASP NEG DUOC Nam explain  
 ‘These issues were not explained by Nam (someone would benefit).’

The denotation of the BP in our analysis is given below. We show the output of function application on the at-issue tier:

- (94)  $[[BP]] = \lambda e.\text{explaining}(e, \text{issues}) \ \& \ \text{Agent}(e, \text{Nam}) \ \blacklozenge \ \forall w' \in \text{Dox}_S(w). \exists e' \text{ in } w'. \text{explaining}(e', \text{issues}) \ \& \ \text{Agent}(e', \text{Nam}) \rightarrow \exists y.\text{benefit}(y) \text{ in } w'$

Aspect and negation will now combine with BP. Since aspect is not our concern in this paper, we have Asp here simply existentially quantify over the event argument. Negation then negates the sentence (the actual syntactic category of the constituent that includes negation is irrelevant here, we call it NegP):

- (95)  $[[\text{NegP}]] = \neg \exists e.\text{explaining}(e, \text{issues}) \ \& \ \text{Agent}(e, \text{Nam}) \ \blacklozenge \ \forall w' \in \text{Dox}_S(w). \exists e' \text{ in } w'. \text{explaining}(e', \text{issues}) \ \& \ \text{Agent}(e', \text{Nam}) \rightarrow \exists y.\text{benefit}(y) \text{ in } w'$

Aspect and negation are present only on the at-issue tier, and do not affect the not-at-issue tier. We end up with the not-at-issue entailment of the expectation that an event of Nam explaining these issues would benefit someone. This is exactly right. Neither negation nor aspect affect the entailment: if aspect locates the at-issue event in the past, the event in the entailment is not so located, it remains hypothetical (modal). (We will mostly ignore tense and aspect in what follows.)

We propose the above analysis as the syntax and semantics of constructions with BI or DUOC. This analysis captures the meaning of the construction, according to native speaker intuitions, and also its syntactic properties, as we now show.

### 3.4 Requirement of a Variable

Our analysis, where a lambda operator must bind a variable, explains why there must be an NP position somewhere in the complement VoiceP that covaries with the surface subject, and also why it can be embedded multiple clauses down. Binding is not subject to any locality requirement, as is well-known, but there must be an NP to bind. This explains the contrast between examples like the following:

- (96) a. \*Tôi bị Nam ói.  
 I BI Nam vomit  
 ‘I had Nam vomit (and suffered).’  
 b. Tôi bị Nam ói trên áo.  
 I BI Nam vomit on shirt  
 ‘I had Nam vomit on my shirt (and suffered).’

The sentence in (96a) is ungrammatical because there is no variable for the operator to bind. In (96b), in contrast, there is a null possessive pronoun that can be bound.

Similarly, non-gap topic constructions exist in Vietnamese, but corresponding bi-constructions are ungrammatical:

- (97) a. Voi thì anh ấy nên đi Ấn độ.  
elephant Top he should go India  
'As for elephants, he should go to India.' (context: Tigers, he should go to Thailand; elephants, ...)
- b. \*Voi bị anh ấy đi Ấn độ.  
elephant BI he go India  
'Elephants he goes to India (and someone suffers).'

Again, this follows from the requirement that there be a variable for the operator to bind.

Returning to possessive bi-constructions, it is possible for the only possessable NP in the sentence to have a distinct possessor, but in that case it is necessary to understand that NP as having been in the possession of the surface subject, at least temporarily (cf. Landau 1999). In our survey of eight speakers, all eight found the following sentence completely acceptable in the context given:

- (98) a. Context: Yesterday was an unlucky day for Nam and his wife Nga. In the morning Nam was punished by the traffic police for riding without a helmet, and in the afternoon, he used his wife's mobile phone, which was illegal since the law requires that one use one's own mobile phone. For that reason the mobile was taken by the local police.
- b. Anh ta bị cảnh sát khu vực tịch thu cái điện thoại di động của Nga.  
he BI police local confiscate mobile.phone of Nga  
'He had the local police confiscate Nga's mobile phone (and suffered).'

Sentences like this are unacceptable in other scenarios, where there is no temporary possession (e.g., where Nam is depending on Nga to call him).

We hypothesize that even in sentences like this there is a null pronoun that is bound by the lambda operator. What exactly the structure for the possessed NP would be, we are not certain, but we suppose it is something like the English *Nam's radio of Nga*, where prenominal and postnominal possessors can (marginally) co-occur.

Note that aside from the case of a distinct overt possessor, possessive bi-constructions follow with no further stipulation from our account. There just needs to be a variable somewhere in the VoiceP complement of B; this can be a possessive pronoun. The possessive pronoun can be in the underlying object of an unaccusative verb, or the underlying external argument of an unergative verb:<sup>19</sup>

- (99) a. Nam đã bị mất xe.  
Nam Past BI vanish car  
'Nam had his car vanish (and suffered).'
- b. Nam bị trẻ con khóc (không làm việc được).  
Nam BI child cry (Neg do work able)  
'Nam had his child cry (and wasn't able to work [thereby suffering]).'

Any argument of a transitive verb is also possible, as examples throughout this paper have illustrated. The following is an example where the possessed NP is the external argument of a transitive verb (the example is more natural where it is preceded by a sentence about the suffering of someone else):

- (100) ... còn Nam thì bị con gái bỏ việc đi theo trai.  
but Nam Top BI daughter leave job follow boy  
'...but, as for Nam, he had his daughter leave her job for a boy (and suffered).'

<sup>19</sup>The example in (99b) was disputed by a reviewer. In our survey of eight speakers, five found it fully acceptable, one unacceptable, one gave it 3 out of 4, and one 2 out of 4.

The only requirement is that there be a pronoun to bind.

### 3.5 Movement or Binding?

Our analysis simply adjoins a lambda operator to the VoiceP complement of BI/DUOC. Huang (1999), in contrast, proposed that lambda abstraction was the result of A-bar movement of a null operator. While movement may be correct for Mandarin, there is no evidence in Vietnamese that any movement takes place, and in fact there are reasons to think that it does not.

First, it is not necessary that there be a gap in Vietnamese. The bound position can be filled by a pronoun or a repeated name or NP, even where islands are not involved (see also the examples in section 3.10):

- (101) a. Nam được bác sĩ nói là (Nam/nó) nên ói cho khỏe.  
Nam DUOC doctor say Comp (Nam/he) ought vomit for health  
'Nam had the doctor say that he ought to vomit for better health (and benefited).'
- b. Nam bị (Nga) đánh vào chân (của Nam).  
Nam BI (Nga) hit on leg (of Nam)  
'Nam was hit (by Nga) on the leg (and suffered).'
- c. Nam bị Nga báo cảnh sát đến bắt (nó).  
Nam BI Nga inform police come arrest (him)  
'Nam had Nga inform the police to come arrest him (and suffered).'

This is true whether the sentence is a passive bi-construction or an active one.

Second, we showed above that bi-constructions can involve a possessor position inside a nominal. Possessors can never be extracted in Vietnamese:

- (102) a. Tôi bị Nam ói trên áo.  
I BI Nam vomit on shirt  
'I had Nam vomit on my shirt (and suffered).'
- b. \* người đàn ông mà Nam ói trên áo  
person man Rel Nam vomit on shirt  
'the person that Nam vomited on shirt'

There is also no external possessor construction or "possessor raising" that could feed the bi-construction:

- (103) \* Nam ói tôi trên áo.  
Nam vomit I on shirt  
'Nam vomited me on my shirt.'

It follows that possessive bi-constructions simply could not involve movement.

Third, the bound position can be located within a syntactic island, contra Simpson and Ho (2008, 2013):

- (104) a. Nhà vua được họ Mạc sai người tìm [kẻ đã cứu mình].  
king DUOC family Mac order person find [person Past save body/self]  
'The king had the Mac family order people to find [the person who saved him] (and benefited).'
- b. Tập đoàn TT bị thủ tướng tuyên bố [trừng phạt tập đoàn này] là ưu tiên của  
group TT BI prime minister declare [punish group this] be priority of  
chính phủ.  
government

‘The TT Group<sub>1</sub> had the prime minister declare that punishing that group<sub>1</sub> was a priority of the government (and suffered).’

Such cases are usually better with an overt pronoun or repeated NP, but that is not always necessary; see example (110) below with a coordinate structure island.

There are two possible approaches to these facts that still postulate movement. First, movement could always be involved, but it does not necessarily leave a gap. Second, bi-constructions could permit *either* a movement or a non-movement derivation. We address each of these possibilities in turn.

First, one could claim that bi-constructions always involve movement, but movement does not necessarily leave a gap. Under certain circumstances (islands, for instance), the tail of a movement chain may or must be pronounced. To address this possibility, we bring in data from topicalization as a comparison. Topicalization and bi-constructions pattern identically in the pronunciation of the associated argument position. For instance, the argument position may not be pronounced if there is no clause or NP boundary between it and the topic or the subject of BI:

- (105) a. Tác giả này thì Nga đánh (\*ông ta) (, còn tác giả kia thì Nam đánh).  
 author this Top Nga hit (\*him) (, and author that Top Nam hit)  
 ‘This author, Nga hit him (, and that author, Nam hit him).’  
 b. Tác giả này bị Nga đánh (\*ông ta).  
 author this BI Nga hit (\*him)  
 ‘This author had Nga hit him (and suffered).’

If there is a clause boundary, the position may be pronounced, optionally:

- (106) a. Nam thì Nga báo cảnh sát đến bắt (nó).  
 Nam BI Nga inform police come arrest (him)  
 ‘Nam, Nga informed the police to come arrest him.’  
 b. Nam bị Nga báo cảnh sát đến bắt (nó).  
 Nam BI Nga inform police come arrest (him)  
 ‘Nam had Nga inform the police to come arrest him (and suffered).’

If the position is a possessor (so, inside an NP), it may be pronounced in both cases:

- (107) a. Ông này thì thằng bé ói vào áo (của mình).  
 man this Top boy vomit on shirt (of self)  
 ‘This man, the boy vomited on his shirt.’  
 b. Ông này bị thằng bé ói vào áo (của mình).  
 man this BI boy vomit on shirt (of self)  
 ‘This man had the boy vomit on his shirt (and suffered).’

If the argument position is inside an island, it prefers to be pronounced in both cases:

- (108) a. Tác giả này thì Nga phê bình sách do ông ta viết.  
 author this Top Nga criticize book by he write  
 ‘This author, Nga criticized the book he wrote.’  
 b. Tác giả này bị Nga phê bình sách do ông ta viết.  
 author this BI Nga criticize book by he write  
 ‘This author had Nga criticize the book he wrote (and suffered).’



In the case of a coordinate structure, where the argument position is one member of a coordinated NP, it must be pronounced in both cases:

- (109) a. Chính trị gia này thì nhiều người bầu cho \*(ông ta) và đảng của mình.  
 politician this Top many person vote give \*(him) and party of self  
 ‘This politician, many people voted for him and his party.’
- b. Chính trị gia này được nhiều người bầu cho \*(ông ta) và đảng của mình.  
 politician this DUOC many person vote give \*(him) and party of self  
 ‘This politician had many people vote for him and his party (and benefited).’

In case the argument is part of a larger coordinate structure, it may be pronounced or not, in both cases. This is so even when there is an associated position in each conjunct:

- (110) a. Chính trị gia này thì cảnh sát đã bắt (ông ta) và kết án (ông ta).  
 politician this Top police Asp arrest (him) and convict (him)  
 ‘This politician, the police arrested him and convicted him.’  
 (any combination OK, but prefer parallel, both overt or both null)
- b. Chính trị gia này bị cảnh sát bắt (ông ta) và kết án (ông ta).  
 politician this BI police arrest (him) and convict (him)  
 ‘This politician had the police arrest him and convict him (and suffered).’  
 (any combination OK, but prefer parallel, both overt or both null)

In the case of a weak island, like a wh-question, pronunciation is optional in both cases:

- (111) a. Chính trị gia này thì Nga cho là nhiều người không hiểu tại sao (ông ta)  
 politician this Top Nga think Comp many person Neg understand why (he)  
 lại ly dị vợ.  
 Advers divorce wife  
 ‘This politician, Nga thinks that many people do not understand why he divorced his wife.’
- b. Chính trị gia này được Nga cho là nhiều người không hiểu tại sao (ông ta)  
 politician this DUOC Nga think Comp many person Neg understand why (he)  
 ly dị vợ.  
 divorce wife  
 ‘This politician had Nga think that many people do not understand why he divorced his wife (and benefited).’

Given this parallel, we could construct a theory where both topic constructions and bi-constructions involve movement, and the trace of this movement may or must be pronounced in certain circumstances.

Consistent with this view, topic constructions permit reconstruction, here for binding of the reflexive *mình*:

- (112) a. Nhà mình thì Nam không ngủ được.  
 house self Top Nam Neg sleep can  
 ‘His<sub>1</sub> own house, Nam<sub>1</sub> cannot sleep in.’
- b. Chị mình thì Nam cho là mọi người nên thuê.  
 sister self Top Nam think Comp all person should hire  
 ‘His<sub>1</sub> sister, Nam<sub>1</sub> thinks people should hire.’

However, this is true only if the associated argument position is not pronounced:

- (113) \*Chị mình thì Nam cho là mọi người nên thuê cô ta.  
 sister self Top Nam think Comp all person should hire her  
 ‘His<sub>1</sub> sister, Nam<sub>1</sub> thinks people should hire her.’

This rules out the first alternative we have been considering, where topicalization and bi-constructions *always* involve movement, but the trace of movement can sometimes be spelled out. This view would expect reconstruction to be possible even when the associated argument position is pronounced.

We take these data to indicate that topicalization may involve a movement derivation or a non-movement derivation, but the movement derivation necessarily leaves a gap. If the associated argument position is pronounced, only the non-movement derivation is possible. Since topic constructions and bi-constructions pattern identically in the pattern of pronunciation of the associated argument position, we conclude that the first alternative—movement in all cases—is not correct for bi-constructions, either. The pattern of pronunciation is not indicative of movement.

This brings us to the second alternative, that bi-constructions sometimes involve movement and sometimes do not. Importantly, in contrast to topic constructions, bi-constructions do not permit reconstruction for binding of the reflexive *mình*:

- (114) \*Chị mình được Nam cho là mọi người nên thuê.  
 sister self DUOC Nam think Comp all person should hire  
 ‘His<sub>1</sub> sister had Nam<sub>1</sub> think people should hire her (and benefited).’

Even in a short-distance bi-construction with the argument position unpronounced, no reconstruction is possible; the reflexive must be interpreted as referring to the speaker:

- (115) Chị mình được Nam khen.  
 sister self DUOC Nam praise  
 ‘My sister benefits from Nam praising her.’  
 \*‘His<sub>1</sub> sister had Nam<sub>1</sub> praise her (and benefited).’

It therefore appears that there is a movement parse of topic constructions, but only when the associated argument position is a gap. There is no movement parse of bi-constructions, contra the control/raising ambiguity hypothesis of Huang (2013), which was discussed and rejected for English *get* passives above. The raising/control ambiguity theory also seems to be incorrect for Vietnamese bi-constructions: the surface subject never undergoes direct movement.

This rules out the second alternative, where bi-constructions *sometimes* involve movement. However, there is another movement alternative that we must consider. In Huang’s (1999) movement analysis, what moves is not the surface subject itself, but a null operator. This analysis has movement, but not of the NP itself; it therefore predicts the lack of reconstruction observed above. It is also consistent with the following facts: First, as has been illustrated already, bi-constructions can be long-distance, crossing clause boundaries and intervening arguments. This ability to be long-distance should indicate that A-bar movement is involved, rather than A-movement. However, bi-constructions pattern with A-movement, not A-bar movement, in their interaction with binding. There is never any reconstruction, as shown above, and the subject of BI always acts as though it is in an A-position. For instance, a quantifier can bind a pronoun from this position, with no hint of weak crossover:

- (116) Ai cũng bị bạn của họ báo cảnh sát bắt.  
 everyone BI friend of they tell police arrest  
 ‘Everyone<sub>1</sub> had his<sub>1</sub> friend tell the police to arrest him<sub>1</sub> (and suffered).’

If there is A-bar movement, then, the subject of BI is not itself undergoing this movement; rather, a null operator must be, as in Huang's (1999) analysis of Mandarin Chinese. The subject of BI must be generated in its surface position (an A-position), and related to the null operator through predication.<sup>20</sup>

Hence, we arrive at two possible analyses of bi-constructions: (1) there is never any movement, but only binding; (2) there may be movement of a null operator, but non-movement is also possible. There is very little evidence to distinguish these two possibilities. The analysis that permits movement sometimes would presumably allow movement only with a gap, and never with a pronounced associated argument position, given the reconstruction data above involving topics. A difficulty arises with this view, though, which is that, as shown above, possessors can never be extracted in Vietnamese. Yet possessive bi-constructions are fine with no pronounced possessor, as was also shown above. Hence, there is no direct correlation between pronunciation of the associated position and conditions on extraction. That is, violating a condition on extraction does not necessarily require pronouncing the associated argument position (this was also true in coordinate structures). There is only a one-way relation: true extraction can only leave a gap, but base-generation can be related to either a pronounced argument position, or a null one (a null pronoun, presumably).

A simple alternative account of pronunciation invokes syntactic complexity: the further away the bound position gets from the binder (according to some structural, not purely linear, distance algorithm), the more likely it is to be pronounced. The associated argument is bound as a variable, in both bi-constructions and topic constructions. As in numerous languages, NPs interpreted as bound variables prefer to be null (Saito and Hoji 1983, Montalbetti 1984), and in Vietnamese this is reflected in a requirement that it be null if there is no clausal (or NP) boundary between it and the binder. If there is such a boundary, the variable can be pronounced, and this becomes increasingly preferred the more complex the structure becomes. Since most islands involve significant syntactic complexity, islands generally induce a strong preference for pronunciation of the variable. In the case of simple NP islands (possessive bi-constructions) and simple coordinate structures, however, no great syntactic complexity is present, and there is no need to pronounce the variable.

There is, therefore, a plausible approach to the pattern of pronunciation that we see in both topic constructions and bi-constructions that does not relate it to movement. This means that obligatory or non-obligatory pronunciation of the argument position is not an indicator of whether movement has taken place. More generally, conditions on extraction are also not a good indicator of whether movement has taken place in Vietnamese. This being so, the pattern of pronunciation in Vietnamese does not indicate that movement takes place in bi-constructions, and there is no positive evidence for movement in bi-constructions.

There is also some evidence *against* movement. If there were A-bar movement of a null operator, we might expect it to create an island for A-bar movement across it (Chomsky 1977). This is not the case, however; an NP within the complement of BI/DUOC can be relativized across BI/DUOC:

- (117) a. Đây là ngón tay mà tôi bị Nga làm gãy.  
           this Cop finger Rel I BI Nga make snap  
           ‘This is the finger that I had Nga snap (and suffered).’  
       b. Đây là người đàn ông mà tôi được Nam giới thiệu.  
           this Cop CL man Rel I DUOC Nam introduce  
           ‘This is the man that I had Nam introduce me to (and benefited).’

<sup>20</sup>Note that topics can also bind from their surface position:

- (i) Ai có tiền thì bạn của họ cũng báo cảnh sát bắt.  
       who have money TOP friend of they also tell police arrest  
       ‘[Everyone with money]<sub>1</sub>, his<sub>1</sub> friend told the police to arrest him<sub>1</sub>.’

As discussed above, there seem to be two possible derivations for topicalization: movement and base-generation. Presumably binding from the high position is only possible under the base-generation option.

No island is created even when the bi-construction is long-distance:

- (118) Đây là khách hàng mà tôi được Nam cử nhân viên giới thiệu (cho tôi).  
this Cop customer Rel I DUOC Nam delegate staff.member introduce (for I)  
'This is the customer that I had Nam delegate a member of staff to introduce me to (and benefited).'

There is no positive evidence for movement, then, and the lack of island creation is one indication that movement does not take place.

Above we said that there is never any evidence of reconstruction in bi-constructions. However, it might be suggested that examples like the following indicate reconstruction:<sup>21</sup>

- (119) a. Thuốc trường sinh bất tử thì mọi người muốn có.  
medicine long life without death Top every person want have  
'The elixir of life, everyone wanted to have it.' (speaker not committed to its existence)  
b. Thuốc trường sinh bất tử được mọi người tìm kiếm.  
medicine long life without death DUOC every person seek  
'The elixir of life had everyone seeking it (and someone benefited).' (speaker not committed to its existence)

Both the topic and bi-construction apparently permit the fronted NP to be interpreted within the scope of an intensional verb ('want' or 'seek'). A natural way to achieve this would be to reconstruct it.

One issue is that this is incompatible with the above conclusion that if there is movement in a bi-construction, it is movement of a null operator, not movement of the NP itself. More importantly, a hanging topic with no gap is also consistent with no commitment to existence, meaning that this is not a matter of reconstruction:

- (120) Thuốc trường sinh bất tử thì anh nên đi Nhật.  
medicine long life without death Top you should go Japan  
'(As for) the elixir of life, you should go to Japan.' ('... maybe you can find it there.')
- (speaker not committed to its existence)

Non-gap topics have nowhere to reconstruct to; the lack of commitment to existence here could therefore not be due to reconstruction. Rather, it appears that people can discuss hypothetical/mythical/non-existent entities without committing to their existence.<sup>22</sup>

We conclude that there is no positive evidence that movement is ever an option in Vietnamese bi-constructions, and there is some evidence that it is not a possibility. Therefore, in our analysis, a lambda operator is inserted adjoined to VoiceP, and it binds an NP as a variable. This NP is a pronoun or some other NP, which may be null or overt. In the next subsection, we will argue that viewing Vietnamese as base-generation explains otherwise puzzling differences between Vietnamese and Mandarin Chinese.

<sup>21</sup>Thanks to Tue Trinh for suggesting data like this.

<sup>22</sup>Other cases of commitment or non-commitment to existence may well indicate reconstruction or a lack of it. For instance, *A unicorn seems to be sick* has no commitment to the existence of unicorns, but *A unicorn seems sick* does, and this seems to be related to reconstruction in the former case and the lack of it in the second case (see Williams 1983). The difference between these and the Vietnamese cases is probably related to the interpretations involved: in Vietnamese topic constructions, there is only a vague "aboutness" relation; in bi-constructions, there is simple predication. Neither of these requires a commitment to existence. One can say *Unicorns are white*, involving predication, without committing to the existence of unicorns, and one can also say *Speaking of unicorns, you should go to Africa*, again with no commitment to existence. In contrast, the verb *seems* involves some sort of perception, at least in the small clause case (Matushansky 2002), which does seem to require the existence of the entity that is perceived. In the full clause case (*A unicorn seems to be sick*), reconstruction can result in only a proposition being perceptible, or inferable, without commitment to its truth.

### 3.6 Vietnamese Versus Mandarin Chinese

At various points throughout this paper we have referred to *bei*-constructions in Mandarin Chinese, and we have implied that something like our analysis is correct for Mandarin Chinese, too. For the most part, Mandarin *bei*-constructions and Vietnamese *bi*-constructions are very similar (see Simpson and Ho 2008, 2013 for explicit comparison), and we believe that a variant of our analysis (with a slightly different semantics) holds promise for Mandarin. However, there is one very important difference between Vietnamese and Mandarin Chinese that must be overcome. This is that Mandarin Chinese does not allow *bei*-constructions with intransitives the way Vietnamese does. In fact, Mandarin Chinese obeys what we might call a “highest subject restriction,” meaning that the surface subject of BEI can correspond to any argumental role within its complement *except* the highest subject. Intransitives are ruled out, and so are examples where the surface subject of BEI corresponds to the subject of a transitive verb.

Kim (2014) proposes that this apparently major difference falls out from a single, minor difference in how the constructions work in the two languages (Kim was actually concerned with Thai, which patterns with Mandarin Chinese in this respect). Both have essentially the analysis that we have proposed for Vietnamese, except that in Mandarin Chinese, the null operator that binds a variable in the complement of BEI is not base-generated but moves to the position from which it binds. That is, the difference between Vietnamese and Mandarin Chinese is that Vietnamese uses base-generation but Chinese uses movement to abstract over the complement of B(E)I.<sup>23</sup>

The way this explains the highest subject restriction is that movement, but not binding, is subject to an anti-locality constraint (e.g., Bošković 1997, Abels 2003, Grohmann 2003). This constraint bans movement that is too short. The particular version of this that is necessary for our purposes is that what is required is that a step of movement cross from one projection to a distinct projection. What is not allowed is for a step of movement to stay within the same projection.

Spelling this out in our terms, the complement of BEI is VoiceP, and it is VoiceP that must be abstracted over. This means that a null operator must move and adjoin to VoiceP. The antilocality constraint bans movement from Spec-VoiceP, the position of the external argument of a transitive or unergative, to adjoin to VoiceP, because this movement step is entirely contained within the same projection. In contrast, an operator in object position can cross VP to move and adjoin to VoiceP. This rules out the surface subject of BEI corresponding to the subject of a transitive verb or an unergative verb.

The issue now is unaccusative verbs. We will say below that these have VoiceP, it is just that Voice does not project a specifier with unaccusatives. Voice with unaccusatives is semantically contentless. We propose that this makes it non-distinct from VP. That is, being semantically contentless and not projecting a specifier means that featurally it is essentially just a type of V, and so it is treated by the grammar as though it is an extension of VP. The fact that it is Voice enables it to be selected by B(E)I, however (in Vietnamese, where unaccusatives are grammatical). Being just an extension of VP means that, although movement from object position does not violate the antilocality constraint with transitive verbs, it does with unaccusatives because the movement does not actually cross VP.

Kim (2014) further justifies treating Mandarin Chinese and Thai as having movement, where Vietnamese has binding instead. This simple difference, coupled with an antilocality constraint that holds of movement but not binding, results in the major difference we see between Vietnamese and Mandarin Chinese (and Thai).<sup>24</sup>

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<sup>23</sup>Note that we limit ourselves to cases in Mandarin Chinese with a gap; *bei*-constructions with overt pronouns may involve a different derivation.

<sup>24</sup>A reviewer suggests an alternative account: having the variable be the highest subject would violate Binding Condition B in Mandarin Chinese, since the variable would be coindexed with the subject of *bei*. We do not adopt this alternative, for two reasons: (i) it would require stipulating that Vietnamese somehow avoids a Binding Condition B violation in the same environment; (ii) null arguments are known to be able to violate Binding Condition B in Chinese (Xu 1986). Null arguments should therefore be acceptable as the highest subject, contrary to fact.

### 3.7 The Size of the Complement

We have hypothesized that the complement of BI/DUOC is only as large as a VoiceP. This is because the clause immediately following BI/DUOC may not have tense, aspect, or mood markers of any kind:

- (121) a. Nam sẽ bị Hoàng (\*đã) thuê người đến phá tiệm ăn.  
Nam Fut BI Hoang (\*Past) hire person go destroy restaurant  
'Nam will have Hoang hire (\*having hired) people to destroy his restaurant (and suffer).'
- b. Nga được Nam (\*đã/sẽ) tặng một cái đồng hồ.  
Nga DUOC Nam (\*Past/Fut) give one CL watch  
'Nga has/had Nam give her a watch (and benefited).'

Clauses embedded further down may have modals and in some cases tense and aspect:

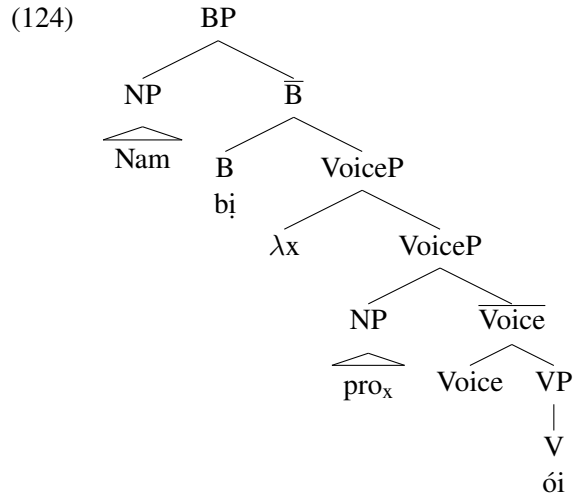
- (122) a. Nam bị Hoa bắt **phải** bán nhà.  
Nam BI Hoa force must sell house  
'Nam had Hoa force him to have to sell his house (and suffered).'
- b. Nhà vua được họ Mạc sai người tìm [kẻ **đã** cứu mình].  
king DUOC family Mac order person find [person Past save body/self]  
'The king had the Mac family order people to find [the person who saved him] (and benefited).'

Since the clause immediately following BI/DUOC does not allow any kind of tense, aspect, or modal morpheme, we assume that it is much smaller than a full finite clause. We hypothesize that it is a bare VoiceP, as described above. It must also be no larger than VoiceP, at least in Mandarin Chinese and Thai, or else the antilocality constraint will not rule out movement of the highest subject as described in the previous subsection.

### 3.8 Intransitive Complements

When the complement of BI/DUOC is intransitive, it is simply the NP in Spec-VoiceP that is the variable, if the verb is unergative; if the verb is unaccusative (e.g., 5b–c), the NP complement of V is the variable. We assume that unaccusative verbs still have a VoiceP, but this version of Voice does not project an external argument (see above, and below for a novel prediction this makes). We illustrate with an unergative example:

- (123) Nam bị ói.  
Nam BI vomit  
'Nam vomited (and suffered).' (based on Simpson and Ho 2008, (39))



There is nothing more to say about intransitives. Their existence simply follows from our analysis, which only requires *some* NP to be bound as a variable in the complement of BI/DUOC. As described above, they are not allowed in Mandarin Chinese and Thai, for a principle reason.

Note that our analysis predicts that the surface subject of a bi-construction should be able to bind the external argument of a transitive verb, in addition to an intransitive one. This is correct:

- (125) a. Nam bị chơi bóng đá.  
 Nam BI play ball kick  
 ‘Nam plays football (and suffers).’  
 b. Nam không bị hát bài đó.  
 Nam Neg BI sing song that  
 ‘Nam doesn’t sing that song (and suffer).’  
 c. Nam bị xem một phim kinh dị.  
 Nam BI watch one film horror  
 ‘Nam watched a horror film (and suffered).’ (based on Simpson and Ho 2008, (48))

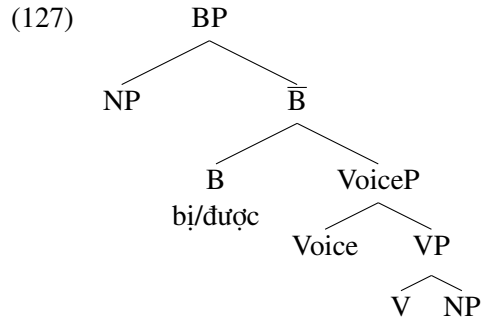
### 3.9 Passive Bi-Constructions

Passive bi-constructions seem to genuinely be passives, as discussed above. The missing external argument is interpreted as an existential. It cannot be bound or controlled, as the following example, repeated from above, shows:

- (126) Tất cả các phóng viên hy vọng tổng thống sẽ được phỏng vấn.  
 all PL reporter hope president Fut DUOC interview  
 ‘All the reporters hope that the president will be interviewed (by someone).’  
 \*‘All the reporters<sub>1</sub> hope that the president will be interviewed by them<sub>1</sub>.’

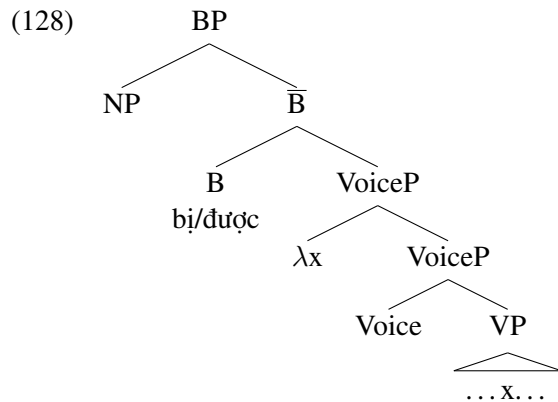
We take this to mean that in the passive bi-construction, BI takes a passive complement phrase, while BI itself is not in any way passive (see above). The complement passive phrase involves existential quantification over the external argument.

The morpheme BI/DUOC itself we take to be identical in passive and active bi-constructions. The difference between the two is simply the nature of its VoiceP complement. Like English *get* and *be*, BI and DUOC can select either an active VoiceP (analyzed above) or a passive one. A passive VoiceP, we hypothesize, is exactly like an active VoiceP, except that the head Voice existentially quantifies over its external argument and does not project it as a specifier. Thus, the structure is the following:



That is, the head B always selects VoiceP, but it does not care whether that VoiceP is active or passive.

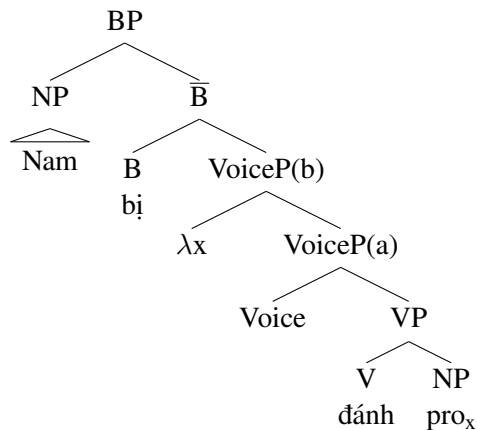
The head B works exactly as in active bi-constructions. This means that its complement, VoiceP, must be a property, which B predicates of the NP in its specifier. Once again, a lambda operator must be adjoined to the complement of B in order to create a property:



The semantic computation is shown below for a simple example, starting with the denotation for the passive Voice head (“Voice<sub>pass</sub>”). Once again, the B head introduces a not-at-issue entailment:

(129)  $\llbracket \text{Voice}_{\text{pass}} \rrbracket = \lambda e. \exists x. \text{Agent}(e, x)$

(130) Nam bị đánh.  
 Nam BI hit  
 ‘Nam was hit (and suffered).’



- a.  $\llbracket \text{đánh} \rrbracket = \lambda x \lambda e. \text{hitting}(e, x)$
- b.  $\llbracket \text{VP} \rrbracket = \lambda e. \text{hitting}(e, \text{pro})$



- c.  $[[\text{VoiceP}(a)]] = \lambda e. \exists x. \text{hitting}(e, \text{pro}) \ \& \ \text{Agent}(e, x)$  (by Predicate Modification)
- d.  $[[\text{VoiceP}(b)]] = \lambda y \lambda e \exists x. \text{hitting}(e, y) \ \& \ \text{Agent}(e, x)$
- e.  $[[\bar{B}]] = \lambda x \lambda e. (\lambda y. \lambda e' \exists z. \text{hitting}(e', y) \ \& \ \text{Agent}(e', z))(x)(e) \ \diamond \ \lambda x. \forall w' \in \text{Dox}_S(w). \exists e'', z \text{ in } w'. \text{hitting}(e'', x) \ \& \ \text{Agent}(e'', z) \rightarrow \exists q. \text{suffer}(q) \text{ in } w'$
- f.  $[[\text{BP}]] = \lambda e. (\lambda y. \lambda e' \exists z. \text{hitting}(e', y) \ \& \ \text{Agent}(e', z))(\text{Nam})(e) \ \diamond \ \forall w' \in \text{Dox}_S(w). \exists e'', z \text{ in } w'. \text{hitting}(e'', \text{Nam}) \ \& \ \text{Agent}(e'', z) \rightarrow \exists q. \text{suffer}(q) \text{ in } w'$

In English and some other languages, the verb combined with Voice is spelled out differently, depending on whether Voice is active or passive. In Vietnamese, it is not, so that active and passive complements of BI/DUOC are identical in form. This is what has led to some of the confusion regarding whether these constructions are passive or not; there has been no confusion in English, where active and passive complements are obviously distinct, but the situations are exactly the same, as detailed at length above.<sup>25</sup> It also seems to be the case that the only head that selects passive VoiceP in Vietnamese is the head B. That is, again unlike English, passive forms only ever appear embedded under BI or DUOC. This has also contributed to the confusion, since it is not obvious that passives are independent of BI/DUOC.

For instance, we showed above that bi-constructions pattern in many ways with topic constructions in Vietnamese. One difference, however, is that topic constructions never allow an external argument to be missing and interpreted as an existential. One can be missing only if it has previously been established as a topic, in which case it is definite and referential:

- (131) a. Chính trị gia này thì (cảnh sát) cũng đã bắt.  
 politician this Top police also Asp arrest  
 ‘This politician, the police also arrested him.’ (can leave out ‘police’ only if previously established as topic: ‘the police are arresting lots of people. . .’)
- b. Chính trị gia này đã bị bắt.  
 politician this Asp BI arrest  
 ‘This politician was arrested (by someone) (and suffered).’

In contrast, the NP after BI can be missing and interpreted existentially.

We assume that passive VoiceP is only selected in Vietnamese by the head B. Other functional projections (tense, aspect, mood, etc.) do not select passive VoiceP, they only select active VoiceP, and so passive VoiceP never appears except as complement to either BI or DUOC. It is important to stress, though, that BI and DUOC are not themselves passive. They have a constant syntax and semantics in both passive bi-constructions, which really are passives, and active bi-constructions, which are not passives at all. It is true that passives do not appear without one of BI or DUOC, but this does not make BI and DUOC markers of the passive. Consider genitive case on NPs in English. It only appears on an NP that is selected by an N. This does not make the selecting N a marker of genitive case. Being selected by an N is an important part of the description of genitive case, but the selecting N is not itself part of the phenomenon of genitive case. The same is true of passive in Vietnamese: it is only ever selected by BI or DUOC, but BI and DUOC are not part of the phenomenon of passive.<sup>26</sup>

<sup>25</sup>In some theoretical accounts of the passive, passive Voice also differs from active Voice in its ability to assign accusative case to the object. As we showed above, case does not always change in the passive relative to the active. We assume that this is a point of variation across languages. In particular, case assignment in Vietnamese does not differ from the active to the passive.

<sup>26</sup>A reviewer suggests that in a context like that given by A’s question below, B’s response might be a passive, without a selecting BI or DUOC:

- (i) A: What about Nam?  
 B: Nam thì đánh.  
 Nam Top hit

Now that we have an analysis of passive bi-constructions, nothing more needs to be said to capture passive possessive bi-constructions in Vietnamese, like the following:

- (132) Tôi bị làm gãy một ngón tay.  
I BI make snap one finger

‘I had someone snap one of my fingers (and suffered).’ (based on Simpson and Ho 2008, (19))

These simply follow from the account. The lambda operator adjoined to VoiceP binds a null possessive pronoun, exactly as in active bi-constructions.

Our analysis does make one prediction that is different from previous views of Vietnamese bi-constructions. Passive Voice is only compatible with verbs that take external arguments, as we showed above. We therefore predict that passive possessive bi-constructions can be built from unergative intransitive verbs but not from unaccusative ones. This is correct:

- (133) a. Tôi bị ói trên áo.  
I BI vomit on shirt  
‘I had someone vomit on my shirt (and suffered).’ *or*  
‘I vomited on my shirt (and suffered).’  
b. Nam bị chết đuối ngay trong phòng tắm của mình.  
Nam BI drown right in bathroom of self  
‘Nam drowned right in his own bathroom (and suffered).’  
\*‘Nam had someone drown right in his own bathroom (and suffered).’

The verb ‘vomit’ is unergative; its sole argument is projected by Voice. As such it is compatible with passive Voice, where the argument is existentially quantified. It is therefore possible for (133a) to be interpreted as ‘someone vomited on my shirt (and I suffered)’. In contrast, the verb ‘drown’ is unaccusative and is not compatible with passive Voice, because it does not have an external argument to be existentially bound. In consequence, (133b) can only mean Nam drowned; it cannot mean that someone drowned in Nam’s bathroom.

As far as we can tell, no other analysis of b(e)i-constructions predicts this contrast. Vietnamese is known to allow bi-constructions with unaccusatives (e.g., 5b–c), and it also allows bi-constructions with existentially quantified subjects, and possessive bi-constructions. There is no reason that we can see in any other analysis that the combination of these (133b) should be ungrammatical. Note that Vietnamese shows exactly the same contrast as numerous other languages, as was illustrated above for English and Dutch passives (22–23). Any theory of the passive should be able to capture this shared restriction. But in the view where the Vietnamese bi-construction *is* the passive, it cannot even be stated, because bi-constructions are compatible with unaccusatives. We take this confirmation of our prediction and the ability of our analysis to capture this cross-linguistic constraint as validation of both our analysis and our view of what the passive is.

### 3.10 More on Active Versus Passive Bi-Constructions

In our analysis so far, the only difference between passive bi-constructions and active bi-constructions is the complement of BI: it is active Voice in active bi-constructions and passive Voice in passive bi-constructions. However, the literature includes claims that the two differ in other ways, most particularly in their ability

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‘As for Nam, he will be hit.’

In the judgment of the second author, this might well be a passive, with an existentially bound external argument; it is not necessary that there be an identifiable hitter in the context. We will leave this sort of context to future research, since it seems to be quite restricted.

to be long-distance. Simpson and Ho (2008, 2013) claim that passive bi-constructions, unlike active ones, cannot be long-distance:

- (134) (based on (Simpson and Ho 2008, (15)))
- a. Nam bị Nga bảo cảnh sát đến bắt.  
Nam BI Nga tell police come arrest  
'Nga told the police to come arrest Nam.'
  - b. \* Nam bị bảo cảnh sát đến bắt.  
Nam BI tell police come arrest  
'Nam had (someone) tell the police to come arrest him.'

Huang (1999) and much other work also claimed that passive bei-constructions can never be long-distance in Mandarin Chinese.

While some long-distance passive b(e)i-constructions do indeed seem to be unacceptable, it is not correct that passive b(e)i-constructions can never be long-distance. The following are some acceptable examples in Vietnamese, although native speakers seem to vary on how readily they accept these types of examples. The sentences in (135b) and (135c) were included in the survey of eight speakers mentioned above. Two found (135b) completely acceptable, two gave it 3 out of 4, three gave it 2 out of 4, and one found it completely unacceptable. More found (135c) acceptable: four found it completely acceptable (4 out of 4), and the other four gave it 3 out of 4.

- (135)
- a. Nam bị nghi là (Nam/nó) bị ung thư.  
Nam BI suspect Comp (Nam/he) BI cancer  
'Nam has someone suspecting that he has cancer (and suffers).'
  - b. Nam bị nghi là thuốc lá đã giết nó.  
Nam BI suspect Comp cigarette Asp kill him  
'Nam has someone suspecting that cigarettes are killing him (and suffers).'
  - c. Nam bị nghi là đã có gián điệp gặp nó.  
Nam BI suspect Comp Asp exist spy meet him  
'Nam has someone suspecting that a spy met him (and suffers).'

In these examples, the only argument position that could be associated with the surface subject is in the clause embedded below the complementizer, because if there is no such position in that clause the sentence is ungrammatical:

- (136) \* Nam bị nghi là đã có gián điệp đến.  
Nam BI suspect Comp Asp exist spy arrive  
'Nam has someone suspecting that a spy arrived (and suffers).'

That is, it is not possible that the argument position related to the surface subject is in the main clause (object of the verb *nghi*, e.g.), because if that were possible, (136) would be grammatical. This means that the examples in (135) must be true long-distance examples of passive bi-constructions.

Alongside the ungrammatical example given by Simpson and Ho (2008) and repeated below, a minimally different example with a different verb is acceptable to some speakers (two fully acceptable, one 3 out of 4, five 2 out of 4):

- (137) a. \* Nam bị bảo cảnh sát đến bắt.  
Nam BI tell police come arrest  
'Nam had (someone) tell the police to come arrest him.' (Simpson and Ho 2008, (15))

- b. ? Nam đã bị báo cảnh sát đến bắt.  
 Nam Asp BI inform police come arrest  
 ‘Nam had someone inform the police to come arrest him (and suffered).’

It therefore appears that, contra Simpson and Ho (2008, 2013), passive bi-constructions can actually be long-distance in Vietnamese. Her (2009) makes the same claim for Mandarin Chinese. We conclude that passive b(e)i-constructions can be long-distance in both languages, at least in principle.

At this point we see two analytical options. The first is to conclude that the good examples are exceptional, and construct an analysis that rules out long-distance passive bi-constructions. The second is to say that the grammar does produce long-distance bi-constructions, but there are some additional, as yet poorly understood, factors that lead to many such examples being degraded.

Most of the literature has gone for the first option. For instance, in Huang’s (1999) analysis, the active bei-construction involves A-bar movement of a null operator out of the complement of BEI, which is fully clausal (IP). Since this is A-bar movement, it can be long-distance. In contrast, in the passive bei-construction, BEI is a verb that selects only a bare VP as its complement. A null PRO controlled by the subject of BEI moves from the complement of V to the Spec of VP. This movement is A-movement, and as such cannot be long-distance.

We will instead go for the second option, and take long-distance passive bi-constructions to be grammatical. First, we see no principled way to force passive b(e)i-constructions to involve A-movement rather than A-bar movement. Notice that Huang’s analysis does not explain the facts, it merely restates them in theoretical terms. In our analysis, there is no movement at all in Vietnamese, so the problem is even more difficult: why would binding be subject to a locality constraint just when the complement of BI is passive Voice? Second, if the grammar truly does rule out long-distance passive b(e)i-constructions, how could the long-distance examples above ever be judged acceptable? The grammar should rule them out. It is not clear how exceptions could ever be countenanced if the grammar does not actually generate them. In contrast, it would make perfect sense for additional (as yet unknown) factors to render some examples unacceptable, either elsewhere in the grammar, making them ungrammatical, or extragrammatical factors making basically grammatical sentences unacceptable (cf. Hofmeister and Sag 2010, Chaves 2012 on the same reasoning regarding exceptions to island constraints).

We therefore leave our analysis as it is, predicting the possibility of unbounded binding in all examples of bi-constructions. To the extent that passive bi-constructions do not like to involve long-distance binding, this must be due to other, unidentified factors. We acknowledge that this is not satisfactory, but we will have to leave investigation of these unknown factors to further research.<sup>27</sup>

### 3.11 Existential Binding Versus a Null Pronoun

As mentioned above, our analysis explains why active bi-constructions can be long-distance. They simply involve binding, which is not subject to any locality constraints. We predict that the NP that is interpreted as covarying with the surface subject will be able to appear far removed from the surface subject, even across island boundaries, and this is correct, as we showed above. This is also correct for passive bi-constructions, as was shown in section 3.10. The two do not differ in this regard. In fact, the only empirical difference between passive and active bi-constructions appears to be in the presence of the external argument. In our analysis, this *is* the only difference: in passive bi-constructions, passive Voice existentially quantifies over its external argument. Otherwise, passive and active bi-constructions have the same properties.

There is still something to explain, however. The question is, why would a missing external argument always be interpreted as an existential? That is, why could an unpronounced external argument not be

<sup>27</sup>Huang (1999) also claimed that passive bei-constructions do not permit the particle *shuo* in Mandarin, in contrast with active bei-constructions. However, Her (2009) showed that this is also incorrect, and passive bei-constructions do allow *shuo*.

interpreted as a null pronoun in the active bi-construction structure? The fact is, when the external argument is missing, it is generally interpreted as an existential (which in our theory comes from the passive Voice head).

The existential interpretation is not obligatory, however, if a strong context supports a null pronoun interpretation. For instance, in a topic chain context like that set up in (138a), the external argument can be missing, and interpreted as the topic (138b):

- (138) a. Nga rất hung dữ. — Đánh rất nhiều người.  
 Nga very aggressive. hit very many person.  
 ‘Nga is very aggressive. [She] hit many people.’
- b. Cả Nam cũng bị — đánh.  
 even Nam also BI hit  
 ‘Even Nam was hit [by her] (and suffered).’

We therefore hypothesize that the absence of an NP after BI/DUOC is very strong evidence for the language processor that the passive bi-construction structure is intended. In general, this is then how a missing NP will be interpreted, *unless* a strong context like a topic chain overcomes this preference. This is only a preference, however, and is not a matter of grammar.

### 3.12 Summary

In this section we have proposed a formal syntax and semantics for Vietnamese bi-constructions, building on the null operator analysis previously proposed for Mandarin bei-constructions (Feng 1995, as cited by Huang 1999 and others). In our analysis BI and DUOC predicate their complement of their subject. A null operator abstracts over their complement VoiceP and binds a null pronoun as a variable. BI and DUOC also add a not-at-issue entailment of the expectation of suffering or benefit. In our analysis, the only difference between passive and active bi-constructions is whether Voice is active or passive. Passive Voice existentially quantifies over its external argument, while active Voice projects it as a specifier. The actual BI/DUOC morpheme is the same in both cases, and has the same syntactic properties and semantic denotation. We showed that this analysis explains all the facts of Vietnamese bi-constructions, and explains differences between Vietnamese and Mandarin Chinese, if the null operator is base-generated in Vietnamese but moves in Mandarin Chinese (Kim 2014). We also made a prediction regarding passive possessive bi-constructions formed from unaccusatives, which turned out to be correct.

## 4 Conclusion

In this paper, we have spelled out a formal analysis of Vietnamese bi-constructions that explains their properties. Along the way, we have explored what it means to be a passive, and have concluded that active bi-constructions are not passive at all, but passive bi-constructions are. Importantly, the morphemes BI and DUOC, like English *be* and *get*, are not passive at all; they select both active and passive phrases as complements.

One of the most important features of our analysis is the multidimensional semantics we propose. B(e)i-constructions seem to be truth-conditionally equivalent to the corresponding simple sentences in both Vietnamese and Mandarin, but they also add an element of meaning that is a not-at-issue entailment. We have spelled out exactly what this is in Vietnamese, and proposed that on the at-issue tier of meaning, the BI morpheme simply predicates a property of the NP in its specifier. This seems to capture the meaning of the construction, and its truth-conditional equivalence to the corresponding active sentence.

Although our analysis shares features with other analyses, such as the null operator and predication, it has several features that distinguish it from others. First and foremost is the claim that the meaning contribution of BI and DUOC is a not-at-issue entailment, while the at-issue meaning of a bi-construction is equivalent to the corresponding sentence without BI. This is a departure from every work on the topic. Second, our analysis posits no difference between passive and active bi-constructions except in the presence of passive Voice in the former, which existentially quantifies over the external argument. This distinguishes it from Huang's (1999) analysis, which makes a sharp distinction between the two (but some other researchers have argued that they should not be distinguished, for instance Her 2009). Our analysis also invokes binding, not movement. This also distinguishes it from many analyses. There is also no thematic role assignment, just predication.

At least as important as the actual analysis are some other accomplishments of the paper: We have reexamined what 'deliberately'-type adverbs show and arrived at a much better understanding of their distribution; we have corrected misapprehensions in the literature regarding idioms; and we have investigated evidence for and against movement in some detail. We have shown that there is only a partial correlation between movement and pronunciation of the associated argument position: movement necessarily leaves a gap, but base-generation can be related to either a null or an overt pronoun or other NP. The choice of pronouncing the associated position or not seems to be related to syntactic complexity and not to constraints on movement.

Because islands can be circumvented by the base-generation strategy, but the associated argument position does not necessarily have to be spelled out, islands are not strong indicators of movement in Vietnamese. We instead looked for reconstruction evidence, and found that reconstruction is possible in topic constructions but not in bi-constructions. Beyond leading to the right analysis of topic constructions and bi-constructions, we hope that our findings in this area will help to clarify the question of whether movement is involved in other phenomena in languages that are similar to Vietnamese.

Finally, we have explained differences between Vietnamese bi-constructions and Mandarin bei-constructions (following Kim 2014), and we have also confirmed an important prediction concerning unaccusatives that verifies our analysis and vindicates our view of the passive. As stated above, if the bi-construction itself is analyzed as the passive, then it is impossible to relate the restriction against passive possessive bi-constructions with unaccusatives in Vietnamese to the ungrammaticality of passives with unaccusatives in other languages. In our analysis, however, it is the exact same restriction.

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